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textile bulletin

MAY • 1952

SERVING THE TEXTILE INDUSTRY SINCE 1899

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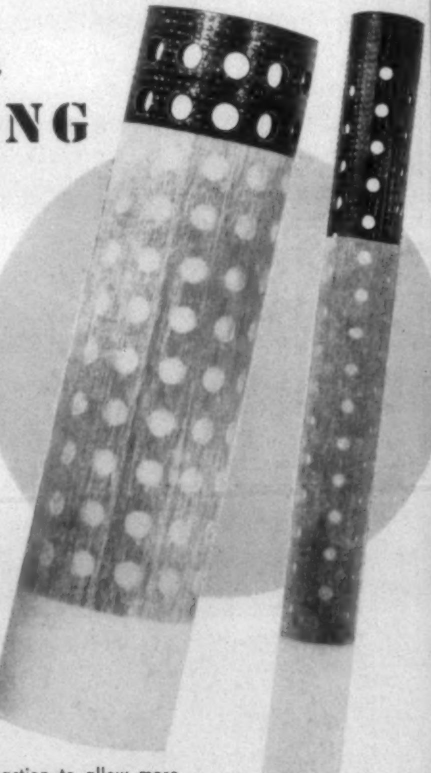

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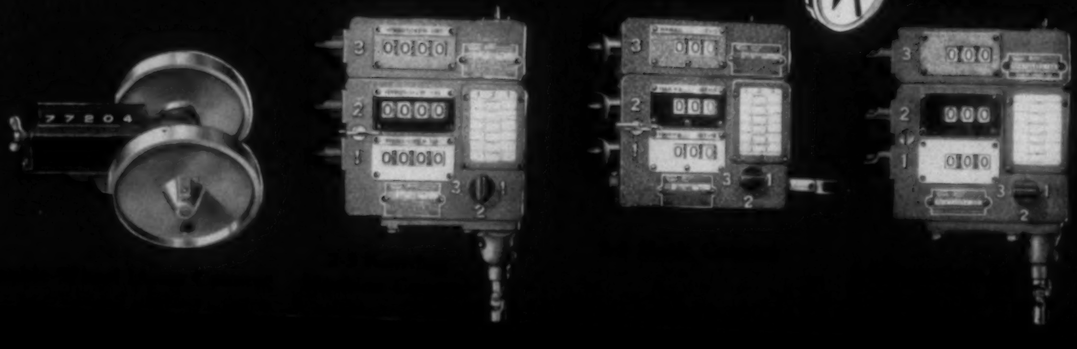
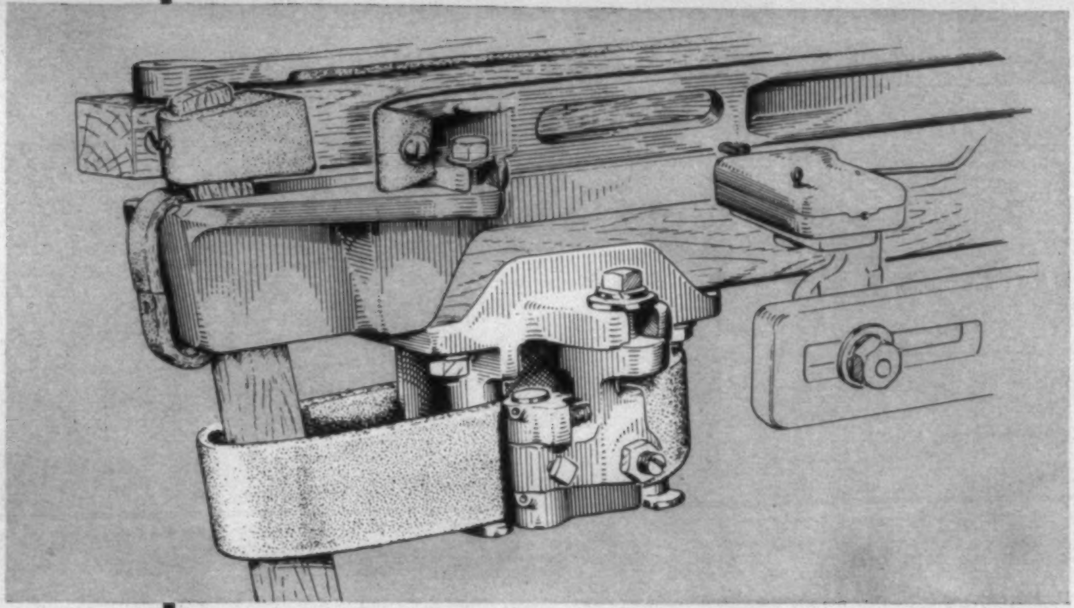


28 Different Combinations

to give proper shuttle checking conditions



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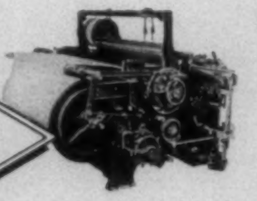

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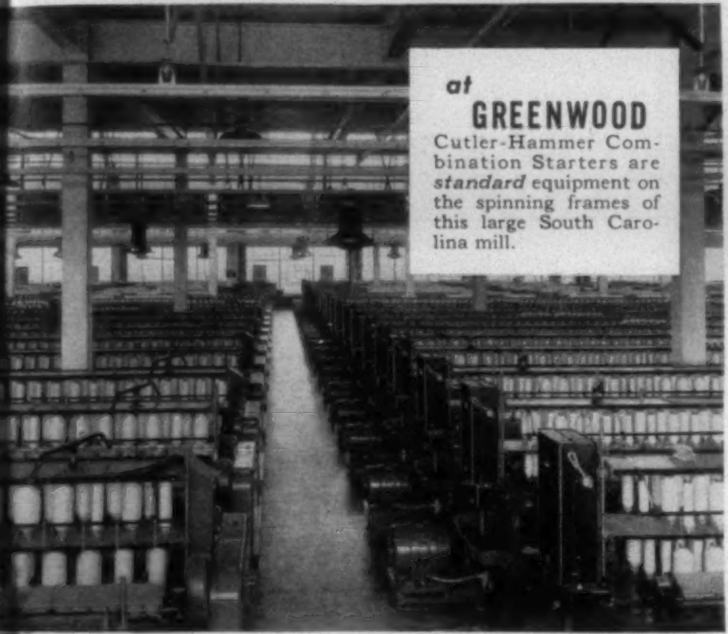

at

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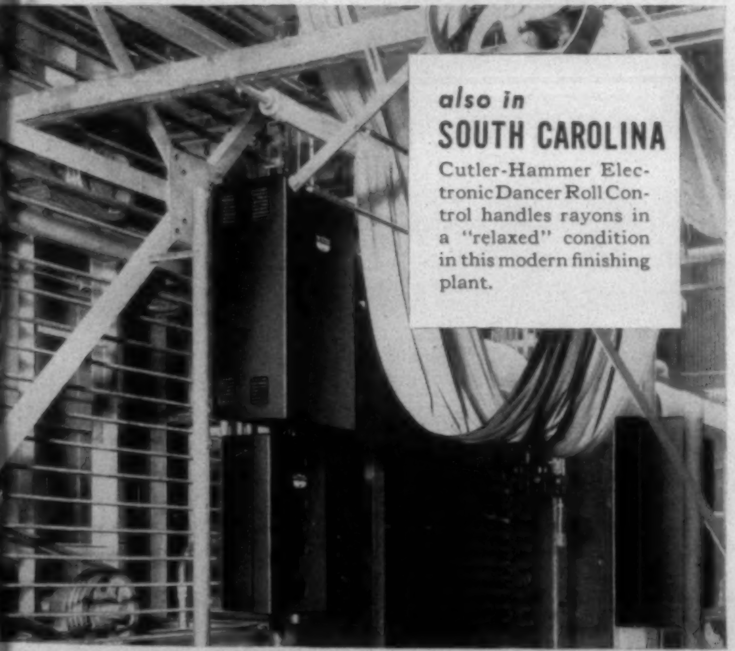
Cutler-Hammer Combination Starters are *standard* equipment on the spinning frames of this large South Carolina mill.

for

WAUMBEC

at Manchester, N. H. Cutler-Hammer Pushbutton Manual Starters on uptwisters and Primary Resistor Type Magnetic Starters on roving frames. Cutler-Hammer control also used on looms and spinning frames in this great mill.



also in

SOUTH CAROLINA

Cutler-Hammer Electronic Dancer Roll Control handles rayons in a "relaxed" condition in this modern finishing plant.

Too important to be left to chance

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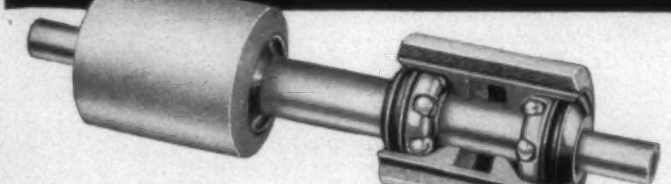

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CUTS LABOR COSTS!
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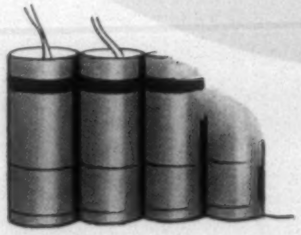

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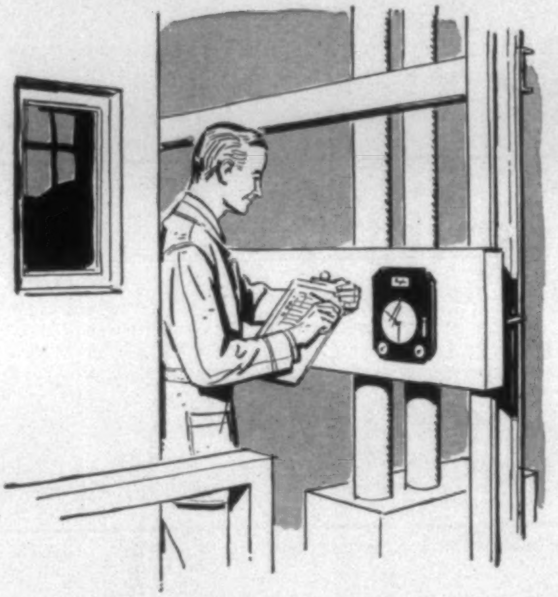

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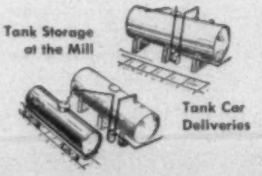
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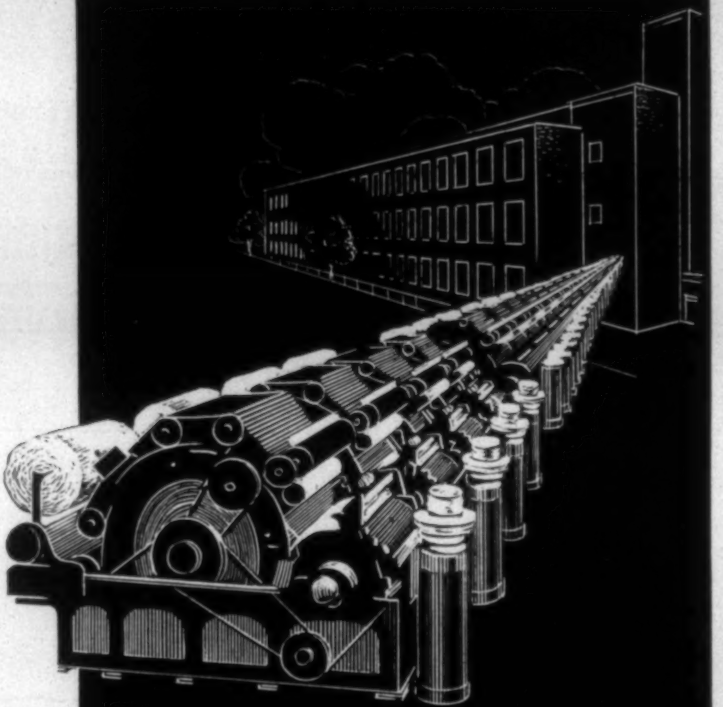

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FROM OLD SPINNING AND TWISTING FRAMES

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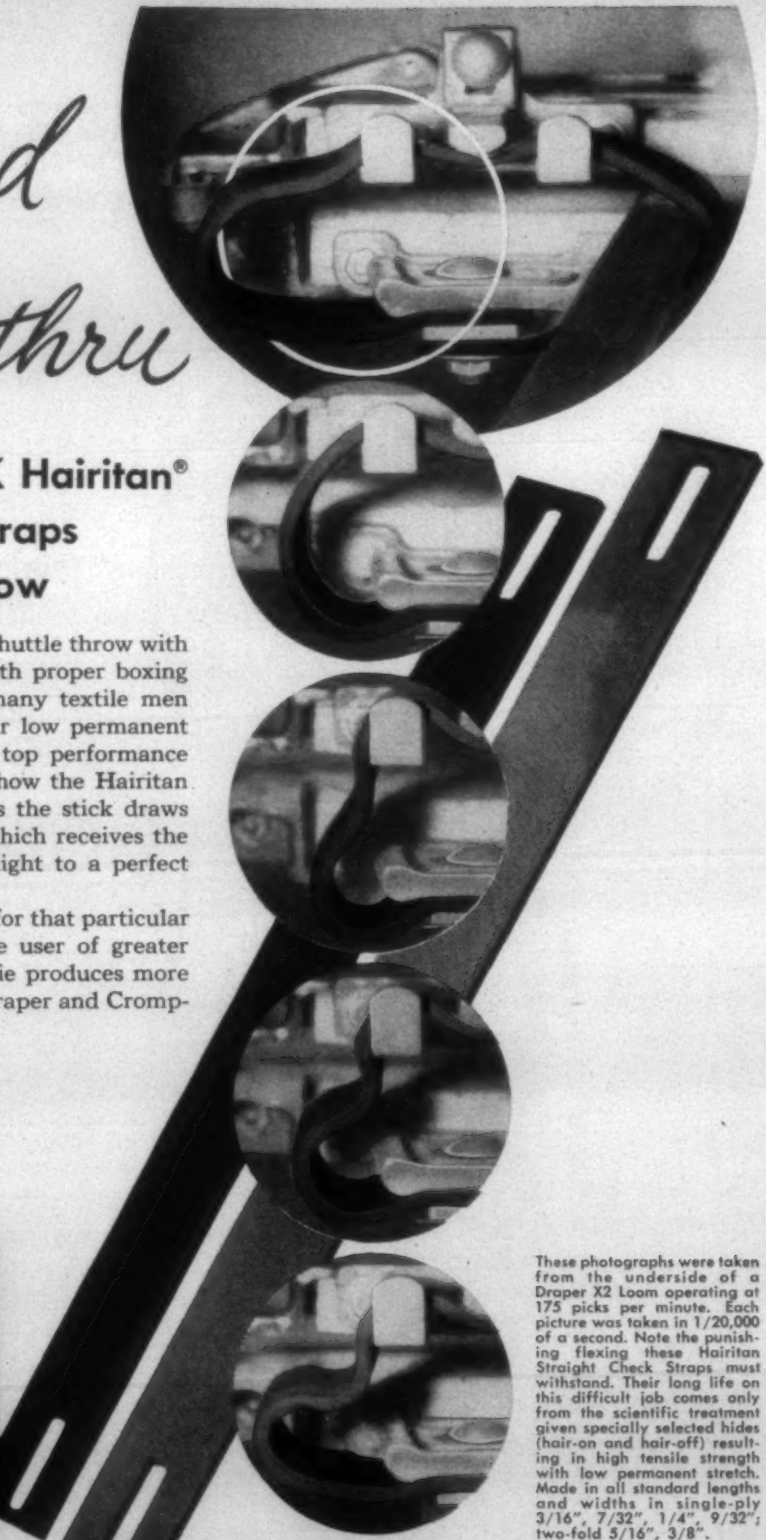
"Live-Stick" action of G&K Hairitan® Leather Straight Check Straps assures smooth shuttle throw

Positive *follow-thru* is necessary for smooth shuttle throw with no bounce. To get this "live-stick" action with proper boxing and uniform shuttle flight on every pick, many textile men prefer Hairitan Straight Check Straps. Their low permanent stretch and high degree of resiliency mean top performance over long periods without down-time. Note how the Hairitan Straight Leather Check Strap flexes back as the stick draws it through the fingers — forms a "cushion" which receives the stick upon its return and gently slows its flight to a perfect landing at the end of the lay.

Orange Line loom leathers are engineered for that particular job which they are to perform, assuring the user of greater production with less maintenance. G&K-Dixie produces more than 50 types of loom leathers for use with Draper and Crompton & Knowles Looms.

CATALOG presents the complete line of Textile Leathers for weaving — also aprons and tapes for the woolen and worsted industry. Ask for a copy, on your letterhead.

CUT SHUTTLE COST
(No hot spurs)
STOP KINKY FILLING
(No shuttle-bounce)
REDUCE BANG-OFF
(Perfect boxing)
INCREASE PROFITS



These photographs were taken from the underside of a Draper X2 Loom operating at 175 picks per minute. Each picture was taken in 1/20,000 of a second. Note the punishing flexing these Hairitan Straight Check Straps must withstand. Their long life on this difficult job comes only from the scientific treatment given specially selected hides (hair-on and hair-off) resulting in high tensile strength with low permanent stretch. Made in all standard lengths and widths in single-ply 3/16", 7/32", 1/4", 9/32"; two-fold 5/16", 3/8".

second century G and K Orange® Line Textile Leathers

GRATON AND KNIGHT ® DIXIE

GRATON & KNIGHT COMPANY, Worcester 4, Mass. DIXIE LEATHER CORPORATION, Affiliate, Albany, Ga.

Figuring Paint Costs by the Gallon

If you REALLY want to save money!

It's perfectly natural to think of paint costs in terms of price per gallon. Paint is a liquid. It's sold by the gallon — and all gallons *look* the same size.

But if you really want to save money, try figuring your paint costs by the *square yard.* You'll find that famous "Barreled Sunlight," even though it may cost a few cents more per gallon, will cost you far less *on the wall* for these four important reasons:

1. **It takes more thinner** — and that means more paint "ready for use" and lower material costs.
2. **It hides better even after thinning** — does a "bang-up" job in one coat where other paints often take two.
3. **It covers more square feet per gallon** — takes fewer gallons than other paints to do the same job.
4. **It goes on faster and easier** — cuts labor expense which today is at least 80% of total painting costs.

An actual "on-the-wall" test — right in your own plant — will prove these cost-cutting advantages of Barreled Sunlight, just as it has to hundreds of other alert paint buyers. Our representative will be glad to arrange such a test — at your convenience and with absolutely no obligation. Write — and he'll call.

BARRELED SUNLIGHT PAINT COMPANY, 5-E Dudley St., Providence 1, R.I.

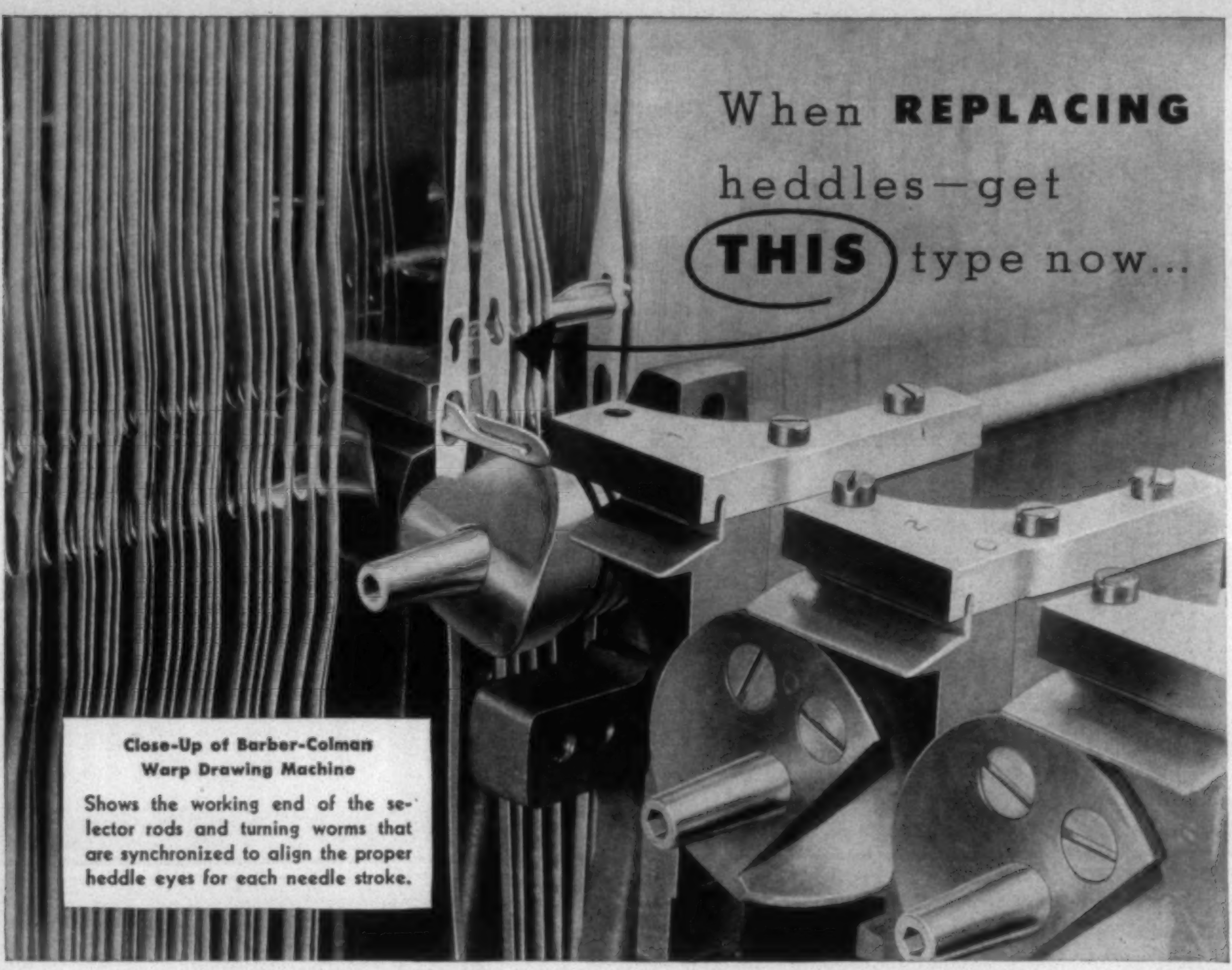
The famous Barreled Sunlight "on-the-wall" test lets you see with your own eyes why the true yardstick of paint value is not price per gallon but *cost per square yard.* Men responsible for volume paint purchases in leading industrial plants and other large buildings have seen it and been convinced. May we show it to YOU?

Barreled Sunlight®
Paints

In whitest white or clean, clear, wanted colors, there's a Barreled Sunlight Paint for every job

IT ALWAYS COSTS MORE NOT TO PAINT!

For over half a century the symbol of quality and dependability among paint buyers for leading industrial, institutional and commercial buildings

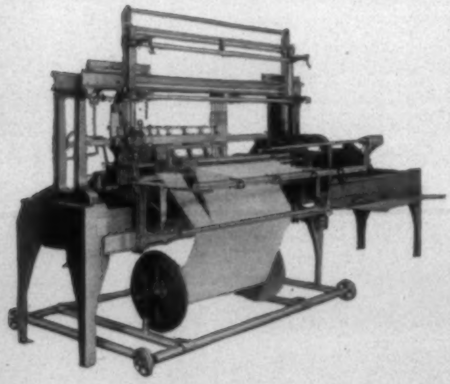


When **REPLACING** heddles—get **THIS** type now...

Close-Up of Barber-Colman Warp Drawing Machine

Shows the working end of the selector rods and turning worms that are synchronized to align the proper heddle eyes for each needle stroke.

By replacing your heddles with key-hole type **NOW** you will be ready for a Warp Drawing Machine **LATER**



The Barber-Colman Warp Drawing Machine requires equipping your looms with harness having steel heddles of the type shown above. Sometimes the cost of such heddles may amount to more than the cost of the machine. These facts should not discourage consideration of the machine, in view of the advantages of substantial cost savings in warp preparation. Since you are replacing groups of your heddles frequently and constantly as they wear out — why not replace your worn-out harness with the type that can be used on a Barber-Colman Warp Drawing Machine? Then, when you are ready for the machine, the problem of special heddles will have been solved. For details in connection with such a program, we suggest you consult your Barber-Colman representative.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

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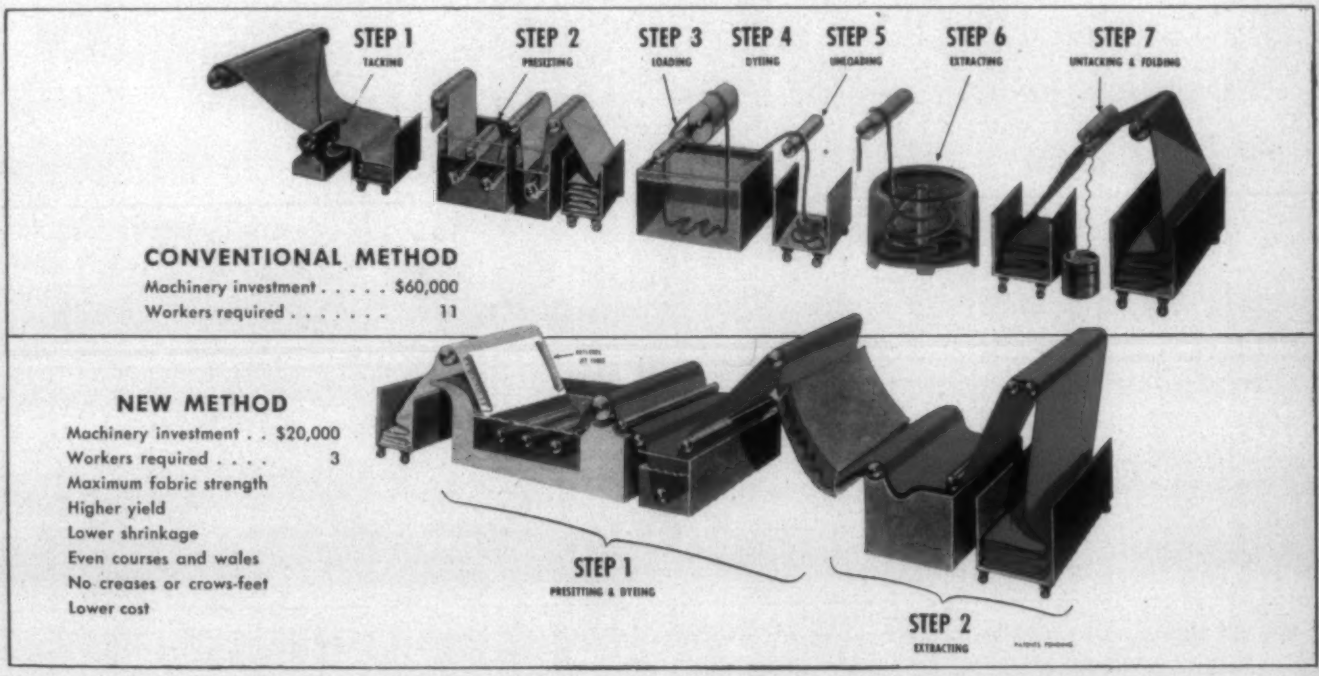
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y. May, 1952

New Avisco continuous dyeing process for Acetate Tricot steps up quality . . . lowers costs



CONVENTIONAL METHOD

Machinery investment	$60,000
Workers required	11

NEW METHOD

Machinery investment	$20,000
Workers required	3

Maximum fabric strength
Higher yield
Lower shrinkage
Even courses and wales
No creases or crows-feet
Lower cost

A new simplified method proposed for dyeing acetate tricot (see flow chart above) developed by Avisco greatly improves fabric quality, reduces shrinkage and lowers costs. The Avisco system presets and dyes the fabric in open-width form, thereby eliminating the necessity for tacking and untacking. The results achieved from this method as compared to dyeing in the conventional rope form, indicate that fabric strength is increased by at least 10%. The shrinkage is better and the yield is greater.

The new process is the result of research conducted at Avisco's Textile Research Department. Complete technical information, licensing data, etc. will be gladly furnished on request.

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

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2 **FABRIC DESIGN**
3 **FABRIC PRODUCTION**
4 **FABRIC FINISHING**

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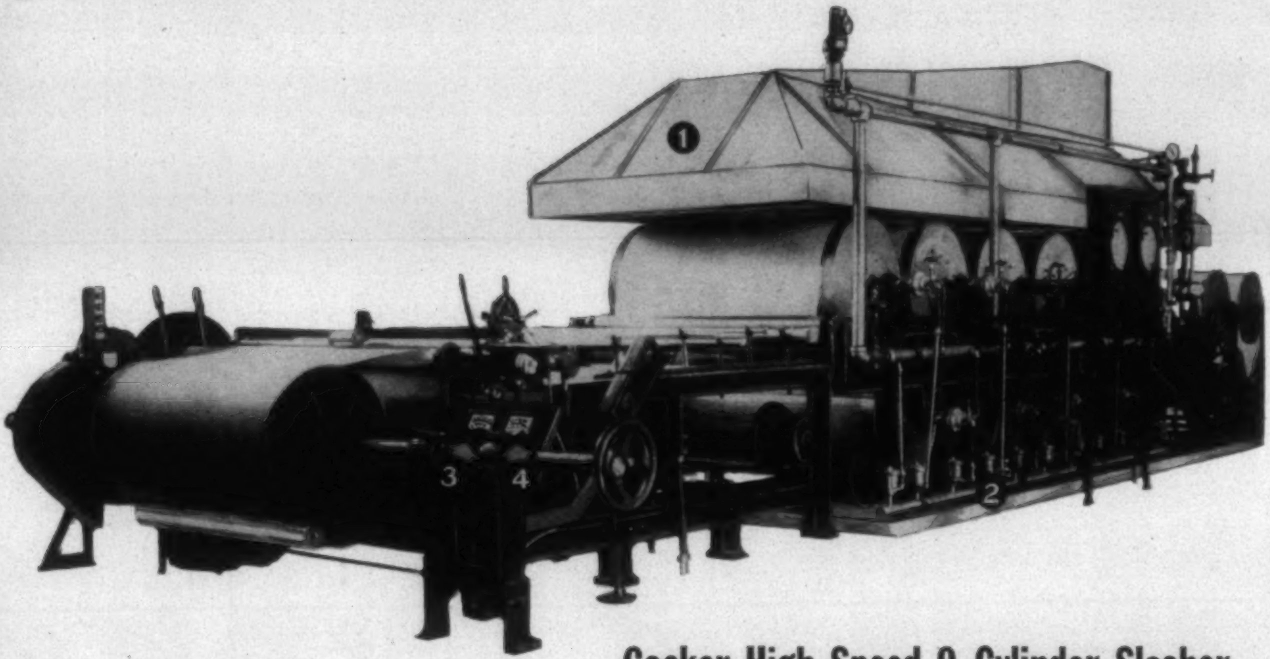
Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

A Complete Slasher Installation by Cocker



Cocker High Speed 9-Cylinder Slasher

For Cottons—Spuns—Filaments—and other yarns

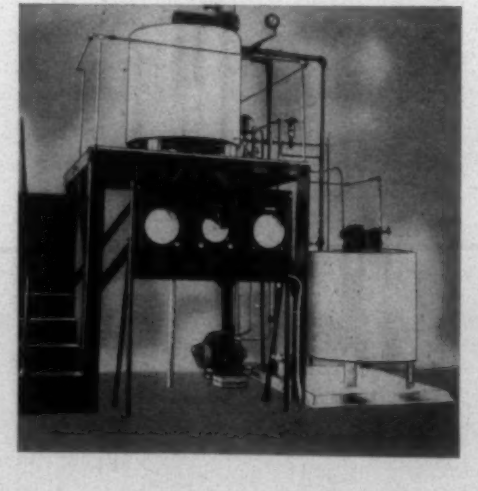
❶ Stainless Steel Hood . . . by Cocker

❷ Stainless Steel Drip Pan . . . by Cocker

❸ Accurate Electric Stretch Indicator

❹ Accurate Electric Speed Indicator

We now have complete facilities for making complete size room installations . . . stainless steel cooking and storage kettles, stainless steel hoods, stainless steel drip pans . . . as well as modern high speed Cocker Slashers for cottons, spuns, filaments, and other yarns. Let us figure on the complete installation of everything in your slasher room.



Complete Cooking and Storage Kettle installation . . . mounted on all-metal Cocker-built tables.

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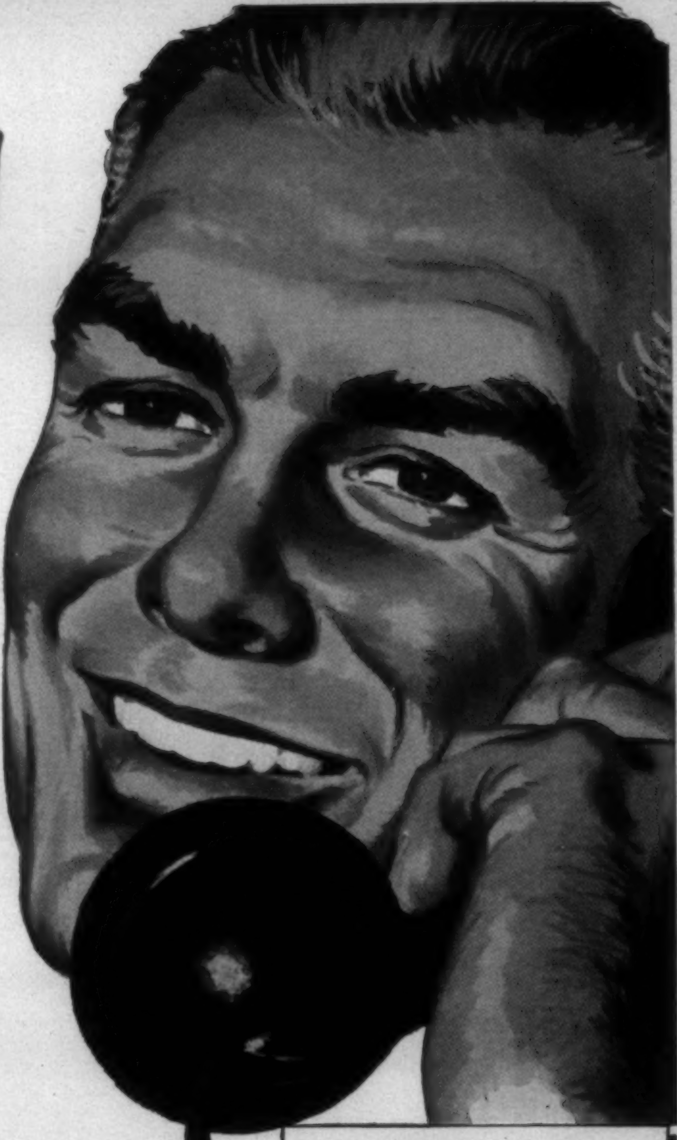
Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

"I've discovered a new, better rayon sizing!"



New STA·GEL *Sizing increases efficiency on difficult rayon weaves*

Staley's new sizing makes possible new efficiency on difficult constructions . . . ends many of the troubles common to rayon weaving. While primarily compounded for use on spun rayon mixtures, it gives equally satisfactory results on combinations of spun rayon with acetate rayon, wool, cotton and other staple fibers.

Important rayon mills now using *Sta-Gel*, report these advantages:

SMOOTHER, TOUGHER SIZE—Each fiber is protected by a smoother, more rugged size. "Fuzz balls" are fewer . . . difficult constructions easier to weave than ever.

MORE STRENGTH AND BINDING POWER—*Sta-Gel* binds the wild fibers to the body of the yarn adding extra strength and weavability.

REDUCES SHEDDING—*Sta-Gel* reduces shedding appreciably in mill operation.

IMPROVED LOOM EFFICIENCY—Gives you outstanding loom efficiency on your most complicated spun rayon weaves —lower percentage of seconds.

EASIER DESIZING—*Sta-Gel* desizes perfectly by any conventional desizing method.

COSTS LESS—*Sta-Gel* goes farther, you can cut your size consumption noticeably, and get lower cost sizing for all types of weaves.

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SPUN RAYON WARP SIZE
for SPUN RAYON
and Mixtures of Staple Rayon with other Fibers
Makes Difficult Constructions Easy to Weave!

STALEY

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IF YOU'RE NOT ALREADY USING *STA-GEL*—get all the facts about this new type rayon sizing. *Write today!*

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Staley's New High Efficiency Spun Rayon Sizing

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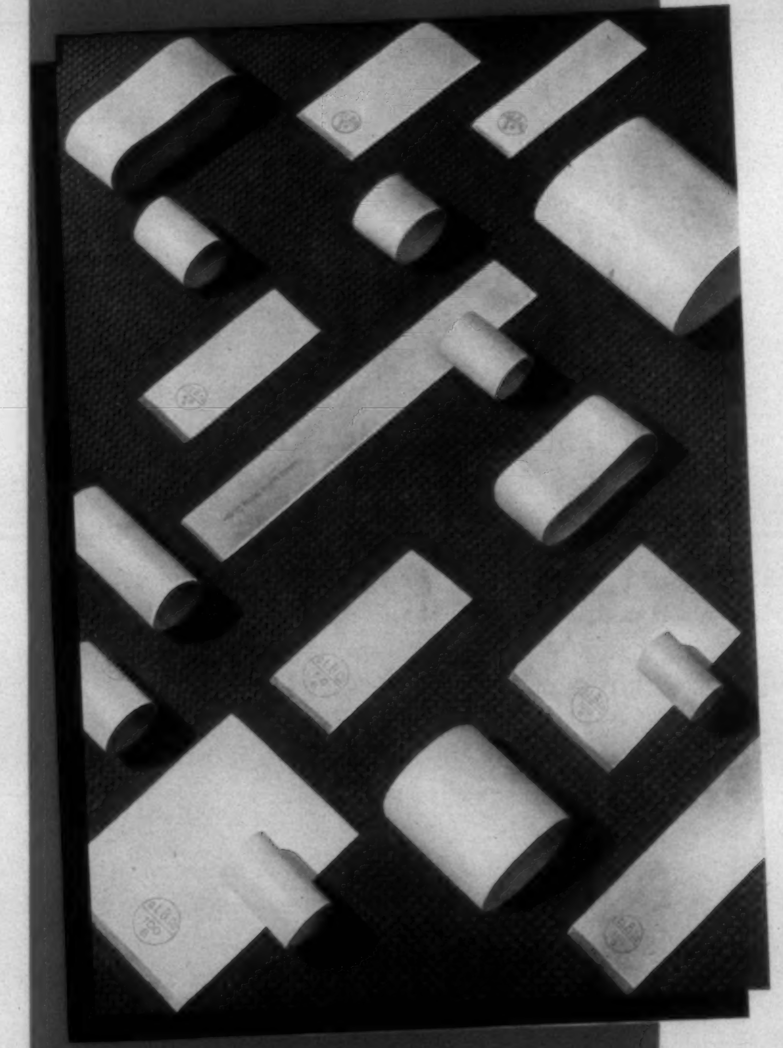
LONG DRAFT SPINNING APRONS



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Perfect Balance
Strong Laps
Better Drafting
Accuracy to Exact Specifications

Blue Star Long Draft Spinning Aprons require a special selection of leather of the highest quality. Blue Star leather is entirely free from any imperfections whatsoever. In addition to this, the Blue Star Aprons are made by experienced craftsmen with expert workmanship.

Double Duty Blue Star Leather Aprons, used on both single and double system frames, give superior service and precision drafting. They are made from both Bark and Chrome Leather.

We will be glad to assist you with your apron problems.

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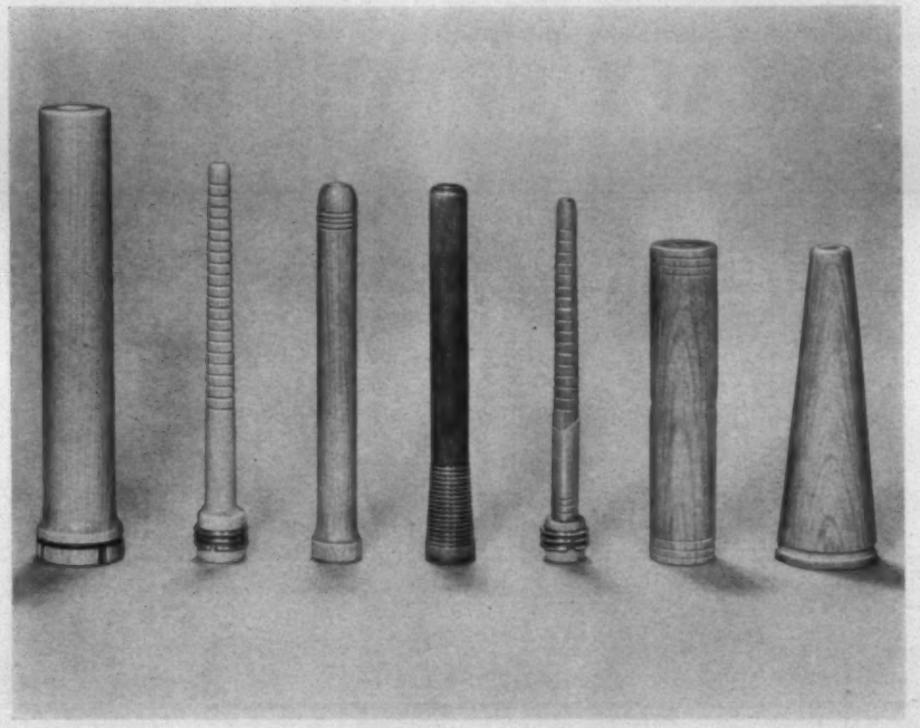

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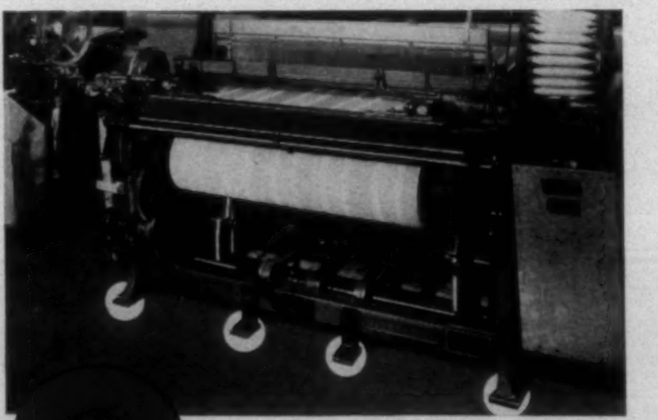
SHOCK PADS

the Neoprene machinery mounts that



Order Gilmer Shock Pads and Shock Pad Cement from your Gilmer Distributor, who also sells Gilmer Nylon Check Straps and Gilmer Textile Belts and Belting for all purposes.

L. H. GILMER COMPANY
Division of United States Rubber Company
515 Tacony, Philadelphia 35, Pa.

- REDUCE VIBRATION AND NOISE
- SAVE FLOORS AND BUILDINGS
- FACILITATE MOUNTING OR RELOCATING
- PERMIT HIGHER-SPEED OPERATION

Gilmer Shock Pads cement firmly to machine legs and floor, provide a quick, solid mount for heavy or light machinery . . . without drilling and bolting down . . . without transmitting vibration to floors or building!

Because they do effectively isolate vibration, Gilmer Shock Pads often make it possible to increase machine speeds . . . raise production rates . . . lower unit costs.

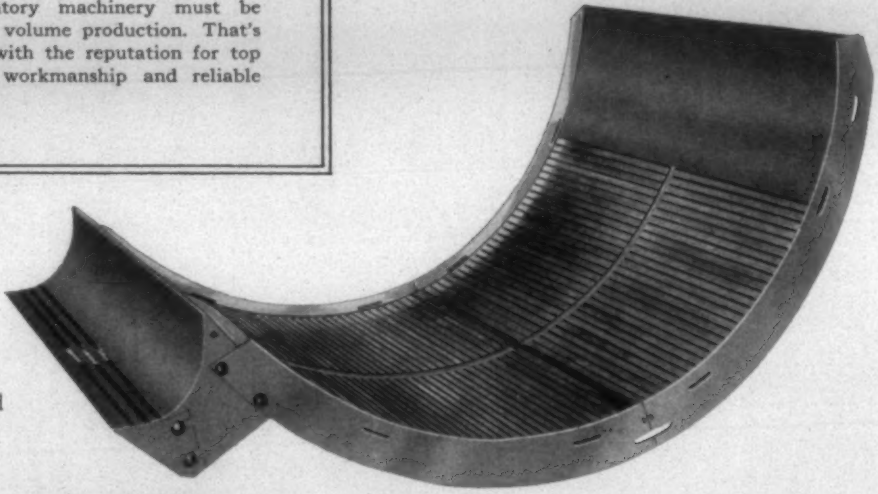
Molded of Neoprene, these modern machinery mounts are highly resistant to oil, heat, water and cleaning compounds . . . do not harden or compact with use. They come in two types—plain-back for lighter loads and fabric-back for heavier loads—and in rolls of various widths or cut to size.

Special Gilmer Shock Pad Cement forms a tight, long-lasting bond with metal, cement or wood . . . dries over night, usually permitting machinery to be run the following day. Use of any other type of cement is not recommended.

MORE PRODUCTION AT LOWER COSTS *with* GASTONIA *TEXTILE*

SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.



Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.

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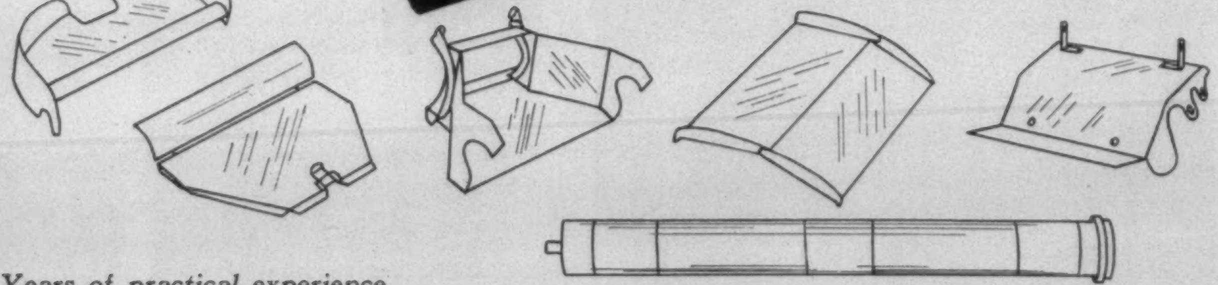

Years of practical experience —the finest of raw materials —and precision machinery in the hands of skilled workmen go into every product.

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What's the One and Only Way to

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Triple-Fast?

Only with CUPROFIX colors and after-treatment can you give direct-dyed fabrics satisfactory fastness to *sunlight* as well as *washing* and *perspiration.*

Particularly on dark shades, CUPROFIX gives cotton, rayon and blends a degree of *wet* fastness that compares favorably with more expensive vat dyes . . . and a much greater degree of *light* fastness than any other after-treatment.

Since CUPROFIX colors can challenge vat-dyed results . . . and they cost so little more than direct dyes—isn't it *smart business* to after-treat? And since CUPROFIX alone gives direct-dyed colors the extra saleability of *triple* fastness—isn't it *smart buying* to use CUPROFIX?

Label Resin-Treated Garments "WASHABLE"

Adding CUPROFIX to the resin bath increases fastness to washing sufficiently to permit labeling garments "washable" instead of just "dry cleanable". It also:

materially increases efficiency of the usual resin treatment

eliminates in many cases the effect of resin on light fastness.

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Fast to Light · Wash · Perspiration
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SANDOZ *thinks ahead with textiles*

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Without Obligation!

The man to consult — on any problem of ring spinning or twisting—is your Dary representative.

You'll incur no obligation. But you'll benefit by our years of experience with problems just like yours — the source of our know-how at producing Dary Travelers, each designed to do a specific job.

Specify DARY Travelers every time!

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Textile Union Troubles

THE C.I.O.'s third largest union is on the ropes. At a moment when Phil Murray's steelworkers, with Harry Truman's help, seem on the point of getting the biggest wage boost in their history, and in a period when Walter Reuther's auto workers are quietly enjoying long-term contracts, Emil Rieve's textile workers are trying to fight off wage cuts while they battle among themselves.

Elected delegates of the Textile Workers Union of America assemble this week in Cleveland for their seventh biennial convention. They will face an admitted crisis. Their union's membership is declining; its treasury is depleted; many of the Northern factories it has organized are fleeing to the South where it has largely failed to organize.

Civil War

Against this dark backdrop civil war is flaring within the big brotherhood, which claims bargaining rights for 400,000 of some 1,250,000 textile workers in this country and Canada. One possibility: After the convention is over, instead of one king-size union arrayed against the mill owners, there may be two unions spending most of their time fighting with each other. And if T.W.U.A. does come back from Cleveland in one piece, the bitterness of feuding may continue to impair its effectiveness as a bargaining agency.

Opposing generals in this "brothers' war" are the 59-year-old Mr. Rieve, who draws down $16,000 a year as union president, and George Baldanzi, 46, who gets $13,500 yearly for his services as executive vice-president. Both gentlemen operate from the eighth floor of the union's modern Manhattan headquarters. When they meet publicly in the elevator an air of icy formality prevails; when they talk about each other in the privacy of their offices their language drifts into unprintability.

These feuding leaders worked in closest harmony for many years. In the early '30s the beefy and rumpled Mr. Rieve, as president of the American Federation of Hosiery Workers, cooperated with the slight and dapper Mr. Baldanzi as president of the Federation of Dyers, Finishers, Printers & Bleachers, another A.F.L. organization. In the late '30s, when John L. Lewis got the C.I.O. rolling, they joined to help found the Textile Workers.

Southern Maneuvers

In 1949, Mr. Rieve successfully urged Phil Murray to put Mr. Baldanzi in charge of a general C.I.O. campaign to organize workers in many industries throughout the South. At the time T.W.U.A. had close to 90 of its organizers on loan to the C.I.O. for the big push. But shortly after Mr. Baldanzi became drive director, Mr. Rieve began withdrawing these men from the general campaign and confined them to organizing for the Textile Workers.

In 1950, at the last T.W.U.A. convention in Boston, President Rieve suddenly attempted to purge his executive vice-president. But Mr. Baldanzi defeated the Rieve candidate, M. S. Bishop, vice-president in charge of cotton and rayon activities, 1,050 to 750. Will another unseating attempt be made? Mr. Baldanzi thinks so.

Rieve followers say the whole trouble is that Mr. Baldanzi is busily working for the day when he hopes to take over the union's reins, when he should be giving his all for the boss.

Mr. Baldanzi replies he wasn't cut out to be a yes-man. And he contends that T.W.U.A. executive committee, composed of the president, executive vice-president, Secretary-Treasurer William Pollock, and the union's 20 vice-presidents, is run by Mr. Rieve "the way Joe Stalin runs the Politburo." Most of the vice-presidents do not receive a salary from holding that office, but depend on Mr. Rieve for another appointive job in the union, such as industry, area or state director, which pays a salary.

Economic Background

Both sides have been concentrating on their political warfare during the year-old textile depression. Since last Spring T.W.U.A.'s weapon of last resort, the strike, has been used sparingly. "We haven't been anxious to play into the hands of manufacturers looking for ways to cut down their big inventories," explains a union official.

The pace-setting "Big Three" in the carpet industry—Bigelow-Sanford, A. & M. Karaghuesian, and Alexander Smith—recently cancelled their contracts, presumably to seek wage reductions.

Union members governed by cost-of-living contract clauses are holding the short end of the stick these days. Some 45,000 woolen and worsted workers and 20,000 cotton and rayon employees have just taken a cent-an-hour wage cut because of a drop in the government's cost-of-living index.

The Union Treasury

A recently released union financial report for the fiscal year ended Feb. 29 tells how troubles have gouged the treasury. The union boasted close to $4.5 million early last year, but now it is in danger of falling under the $3 million mark.

"Expensive strikes, reduced dues collections resulting from mass unemployment, heightened employer resistance to new organization, increased costs for all T.W.U.A. operations—these caused the decline," the report reads. A union statistician notes unemployment has cut the number of dues-paying members to under 300,000 from a 375,000 peak a year ago.

Union people say they'll recover their losses when the general textile picture brightens. The thing they're really worried about, they declare, is that efforts to organize in the South have fallen way short of expectations. "We just can't seem to get going there," says a T.W.U.A. organizer.

At present roughly 80 per cent of the cotton and rayon industry is located in Dixie and all the new synthetic fiber plants are being installed there. The union bargains for about 125,000 workers, or a fifth of the total, in the South; in the North it bargains for over 250,000, or close to 85 per cent of the total.

In the last two years the union has lost some 12,000 members in the South. T.W.U.A. organizers blame Southern employers' anti-union campaigns.

One organizer pulls out facts and figures which indicate that Southern workers can be pretty expensive even after they've been organized. About a year ago it cost T.W.U.A. $1,250,000 to finance 40,000 workers on strike below the Mason-Dixon line for a period of five weeks. At the same time it cost the union only $50,000 to keep 70,000 New England workers on the picket line a month.

An organizer explains: "When you call a strike in the South it isn't long before the workers are showing up at local headquarters asking us for money to keep up payments on cars, refrigerators or what have you." He adds that in the North the men can be counted on to tighten their belts as soon as a big strike threatens.

Mr. Baldanzi claims this is all poppycock. "I have great faith in those hapless Southern workers," he says. He thinks T.W.U.A.'s future hangs on its success in the South.—*Wall Street Journal.*

What Creates Prosperity

EVERY normal human being enjoys prosperity when it comes our way. And prosperity usually comes

NON-FLUID OIL
TRADE MARK REGISTERED

The Original Comb Box Lubricant

The initial applications of NON-FLUID OIL in the Textile Industry, over 50 years ago, were made in comb-box lubrication. Its acceptance by practically the entire Textile Industry during the ensuing years is based on the fact that NON-FLUID OIL outlasts ordinary oils six to eight times and remains in the comb-box without slinging off onto the card fillet and the goods or sliver in process.

Heat is usually a sign of wear, and power waste, so switch to NON-FLUID OIL and enjoy cool, trouble-free carding. Write for free testing sample of NON-FLUID OIL and Bulletin T5 TB.

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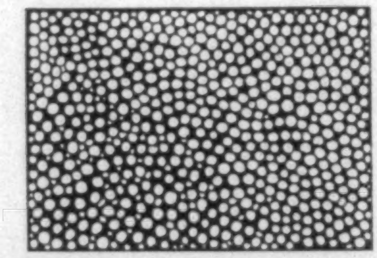
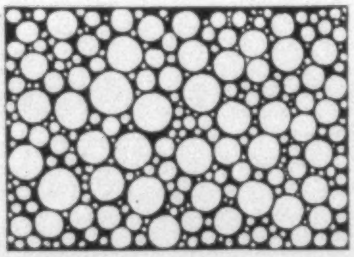
Snaps Less!
at the Loom and Slasher with
GAULIN-HOMOGENIZED SIZE

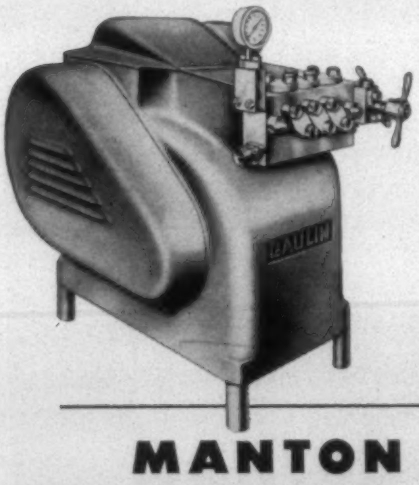


Gaulin-Homogenized Size is fine, regular, uniform and stable.



Boiled Size is coarse, irregular, uneven and will separate rapidly.

Mills report up to 4% higher weaving efficiencies with Gaulin-Homogenized Size. Experience in hundreds of installations proves it makes a stronger, more elastic yarn . . . that sheds less . . . and breaks less at the loom and slasher.



What's more, Gaulin Homogenizers reduce the human element in sizemaking. Once set, they *automatically* provide a finer, stable, perfectly uniform size.

You'll discover other advantages, too. Have your local M-G representative demonstrate how a Gaulin will *improve your mill operation* . . . and *cut your weaving costs*. Write today.

MANTON GAULIN
MANUFACTURING COMPANY, INC.
66 GARDEN STREET, EVERETT 49, MASS.
Southern Representative: W. A. Hewitt — P. O. Box 961, Greenville, South Carolina

Gaulin

World's Largest Manufacturer of Homogenizers, Triplex Stainless Steel High Pressure Pumps, and Colloid Mills

to us all who have a job, who will work, making something that others need and want. When we are producing enough over and above the necessities of life to give most of us a little luxury, with something left over, that can be classed as savings.

Prosperity does not just happen of itself. It must be worked for. When human energy with natural resources and the aid of tools are used properly, man's material welfare is improved. Human energy is muscular and mental; tools are all the things used by man to produce and exchange goods and services.

Capital furnishes the tools to work with while labor furnishes the muscular and mental energy. Nature makes and furnishes natural resources: they are fixed. Our human energy is fixed as to quantity, but the quality of our work rises with our enthusiasm.

There is a fallacy that has been creeping into the minds of some that state or government, by act or law, can create prosperity. It cannot be done this way.

We have a better output of quality from our muscular and mental energies when we are working according to our own plans; with the assurance that what we produce will not be taken away by inflationary cheapening of the dollar and taxes that are too high.

Government's contribution to higher quality should be less interference, tax as little as possible and the protection of the value of the dollar.

Quantity and quality of tools come from capital. They come from savings, from investments and from that part of income that someone has put aside for the future, not from the state or government.

Only when we have capital to provide working tools and equipment, with labor to use the tools for production and quality, can we produce and have prosperity. The two, working together, can create prosperity. There is no other way. — *The Commentator*, Union Bleachery, Greenville, S. C.

The Synthetics Pinched

ONE result of the worldwide textile glut is the abrupt curtailment of plans for expansion of industries devoted to the production of synthetic fibers.

With surplus textiles piling up in

warehouses and the bottom falling out of the wool market the pressure for development of wool substitutes has lifted suddenly and completely.

It is difficult to say what effect the existing production of synthetics has had on the textile surplus. Substitute fibers undoubtedly have complicated the marketing problems in cotton and wool, just as the surpluses of the older fabrics have bounced back finally to plague the new synthetics industry.

For some purposes synthetics have proved superior to the older fibers. Where superiority has been demonstrated it is not likely there will be a return to cotton and wool.

The synthetics will hold that part of the textile market they have won on the basis of superiority. Cotton and wool will have to meet the price competition of the synthetics if they regain even the markets in which they have a natural advantage.—*Daily Oklahoman*, Oklahoma City, Okla.

Donald Comer Day

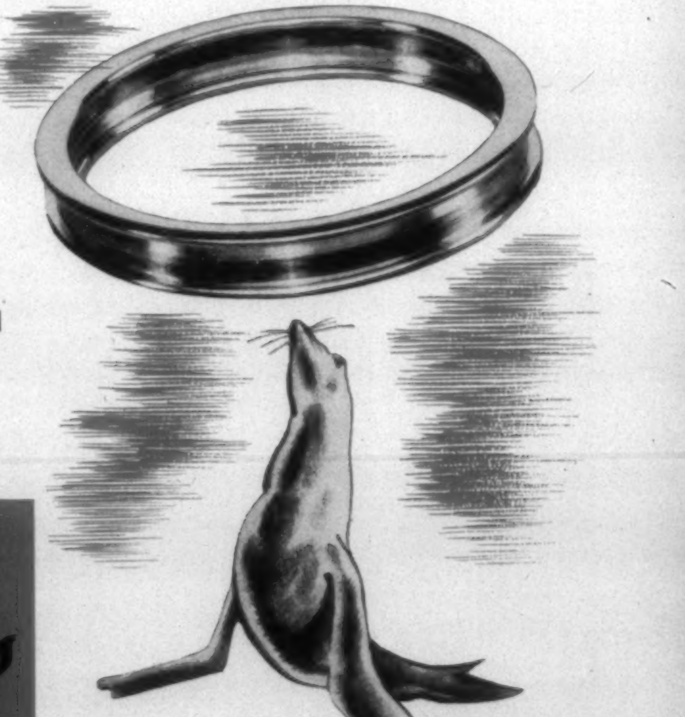
RICHLY deserved is the tribute paid at Sylacauga to Donald

MAYOR VINCENT R. IMPELLITTERI PROCLAIMS THE WEEK OF MAY 12-17 AS COTTON WEEK in New York at a ceremony in the mayor's office attended by cotton textile leaders. The mayor is shown presenting his official proclamation, which pays tribute to New York as "the foremost cotton textile market in the world," to W. Ray Bell, president of the Association of Cotton Textile Merchants of New York. *Left to right:* John Severance, secretary of the Association of Cotton Textile Merchants of New York; B. J. Conlin, vice-president of the New York Cotton Exchange; Paul M. Jones, National Cotton Council; Mayor Impellitteri; Mr. Ball; Edward J. Wade, chairman of the exchange's trade committee; Harold N. Pratt, president of the Textile Export Association; John W. Murray, American Cotton Manufacturers Institute.

Balance

Smooth-running, precision rings
solve spinning and twisting problems.
If you want to be sure of traveler balance and
long wear and smooth running—and all
the other virtues you look for in a ring . . .
just stick, always to

Ragan Rings



RAGAN RING COMPANY • The only manufacturers of Textile Rings in the South • 866 Murphy Avenue, P. O. Box 174 • Station A, Atlanta, Ga.

Representatives: John Foard, P. O. Box 574, Newton, N. C. • Arthur Harris, H. B. "Booch" Askew, 443 Stonewall St., S. W., Atlanta, Ga.
Henry Hersey, Dean Thomas, 44 Norwood Place, Greenville, S. C.

Mark of Excellence...

FOR

100

YEARS

Many, many years ago Adolphus Busch, co-founder of Anheuser-Busch, defined the reason for his company's growing success and reputation... "Making Friends is Our Business." Today, celebrating our 100th Anniversary, Anheuser-Busch still keeps faith with that same principle in all the phases of our business: Top quality for all Anheuser-Busch products... wholehearted, sincere service to our customers... and a continuous program of research and development to seek even better things for all the industries the company serves.

CORN STARCHES
DEXTRINES
GUMS
CORN SYRUPS
FOR THE TEXTILE INDUSTRY

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1112 JOHNSTON BLDG.

NEW YORK, N. Y.
33rd & 12th AVE.

Comer, distinguished son of a distinguished father, model citizen, thorough gentleman and outstanding builder of a better Alabama.

In Sylacauga it was "Donald Comer Day." There the entire community put work aside to join the celebration and pay respect to a man who, by his works and by his example, has won the respect, the admiration and the love of his fellow citizens in countless number.

Years ago in our book Donald Comer won first place for outstanding citizenship and there stands his name today at the top of the list.

So we join the folks in Sylacauga and those who will be there from the four corners of our state to do him honor. We are proud to acknowledge him. We are happy for the opportunity to add our voice to the chorus of appreciation that sounds today throughout our state. — *Birmingham* (Ala.) *Post-Herald.*

Humphrey Errs Again

THE textile worker in the South is being unjustly ridiculed by a few senators under the guise of an investigative group.

Senator Hubert Humphrey is the chairman. He has long shown his complete lack of understanding about Dixie. Apparently he is making no attempt to overcome this ignorance.

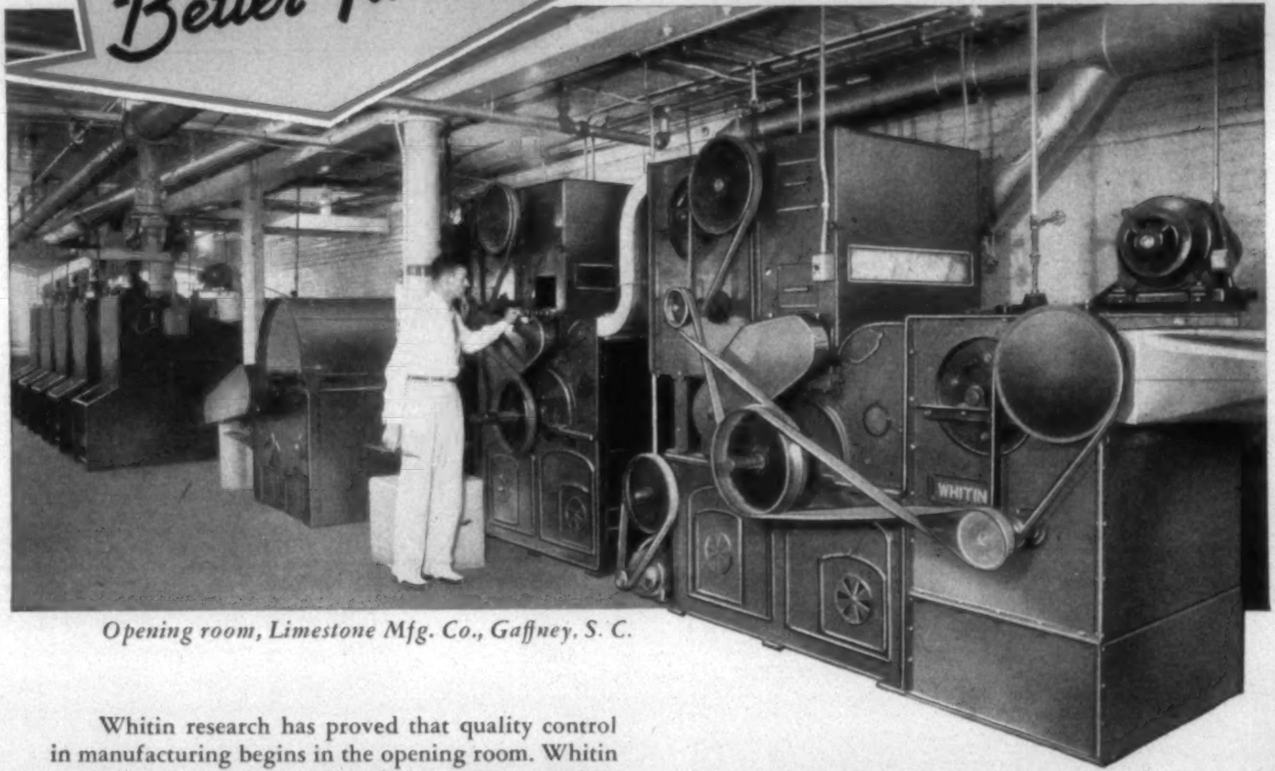
Now his group comes forward with a subcommittee report in which he in effect accuses the Southern textile worker of not being able to think for himself. Nothing could be further than being actually the truth. Of all the groups of workers in America, the Southern textile worker, composed mostly of Anglo-Saxon strain, is probably the most independent-minded. It is primarily because of this reason, because the mill hand covets his freedom of action, that unions have made but little headway in "organizing" him.

Senator Humphrey has apparently had both ears open to the C.I.O. union which has been unable to "sell" itself generally to the Southern worker. He goes so far as to accuse the textile industry of a "conspiracy" to destroy unions. There is no basis of facts to back up this charge.

The one important issue confronting the Southern textile worker is who is most considerate of his welfare. Is it

A
Good Start
insures a
Better Finish

Quality starts with WHITIN Opening Machinery



Opening room, Limestone Mfg. Co., Gaffney, S. C.

Whitin research has proved that quality control in manufacturing begins in the opening room. Whitin machines have been perfected for better opening, blending and cleaning. You can cut processing costs and improve product quality by installing modern Whitin opening equipment.

BLENDING FEEDERS

With two or more Whitin Blending Feeders, a large number of bales can be used for making a more thorough, more accurate blend or mix of well opened stock. The machine is simple to operate, easy to adjust and maintain. Capacity up to 200 lbs. per hour.

MIXING FEED TABLE

A uniform sandwich stock mix, automatically controlled, is made on the Mixing Feed Table. A floor type conveyor, it delivers the stock from a battery of Blending Feeders to a Cleaner, Overhead Condenser, or Picker as required. Available in any desired length.

SPIRAWHIRL BUCKLEY CLEANER

The Spirawhirl is an indispensable machine for opening and cleaning all types of cotton without damage to the fibers. The amount and character of the waste removed by the eight adjustable grid bar sections is easily controlled. Recommended production is up to 1000 lbs. per hour.

DOWNSTROKE BUCKLEY CLEANER

Generally used to follow the Spirawhirl, the 24" Downstroke Buckley Cleaner loosens and extracts large motes, leaf and dirt without breaking the waste into small particles. Recommended production up to 1000 lbs. per hour.

FLEXIBILITY OF UNITS

These machines together with Cage Sections and Overhead Condensers, can be flexibly arranged to make any arrangement of the opening line required by the type of stock processed or the physical layout of the plant.

For more detailed information, consult your nearest Whitin representative, or write to the Advertising Dept., Whitinsville, Mass. for descriptive catalogs.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

DODENHOFF *Anti-Friction*

DOBBY LOOPS

That's good news for would-be users previously disappointed by our inability to make deliveries of this smallest big money saver in textiles. We've expanded production and caught up on back orders. We can now promise prompt shipment from stock either now or in the future.

It's the Roller that Virtually Eliminates Jack Lever Wear

No More Wear Like This

The roller and bearing on the Dodenhoff Dobby Loop eliminate wear by eliminating friction and giving you a smooth rolling harness. That means a double saving — both in replacement cost and shut-down time. You'll agree with users that here is one of the greatest investments you can make.

W. D. DODENHOFF COMPANY
INCORPORATED
GREENVILLE, SOUTH CAROLINA

a union or the management? The worker has this choice to make. He is free to make it. He should also always have the right to work or not work at a job as he sees fit.

Senator Humphrey's committee has not a word to say about the workers who have been shot or beaten during labor disputes. Nothing is said about dynamitings and violence on the part of those trying to force their way by intimidation.

The question thus comes to one of who is trying to use force. The worker should not be forced by anyone else— management or other workers — to make this decision. The choice should be his. Thus far it has been.

It is wrong to infer that the Southern employer is any less considerate of the workers than other sections of the nation. And it is more so an error to intimate that the Southern worker is not as able, self-reliant and independent as others. — *Greenville* (S. C.) *News.*

World Trade And Recovery

A GROWING number of appeals by American business firms for tariff protection against competing goods imported from Britain is causing real concern here and abroad. Britain needs to sell goods in this country if it is to close the "dollar gap" in its trade balance and lessen or eliminate the need of economic aid from the United States.

"Only two ways are open to the United States if it does not want to maintain foreign aid as a permanent policy," the influential British magazine, *The Economist,* reminds us. "It can either import more or export less— i.e., force other countries to curtail their purchases of American goods. Of these alternatives the first offers the better return because it helps both the United States and Europe."

The *Spectator* is a bit more harsh. "Is it not a little inconsistent that in a country which boasts about, and recommends to the attention of others, the enormous material benefits it has derived from free competition, the first businessman who finds that a foreigner can beat him at his own game should run to the United States Tariff Commission for shelter?"

It's never pleasant to be taunted, but perhaps it is well to admit the British

Years of Constant Product Improvement

EMMONS *The* Name in Loom Harness Since 1867!

WEAVE ROOM EQUIPMENT

Heddles, heddle frames, reeds, slasher and striking combs, Run-Rite Plastic Sheaves (distributed by EMMONS in New England, Canada & Export; manufactured by National Plastics, Inc.), plus a complete line of other weave room equipment.

And an Emmons "E" Man is located nearby, ready to supply you with our products or to advise on installations—wherever your mill, whatever your need. Ask him to keep you posted on our constant improvements.

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EMMONS LOOM HARNESS CO., Lawrence, Mass.

Stehedco and Southern

LOOK FOR
STEHEDCO and SOUTHERN
TRADE NAMES THAT LEAD THE FIELD
IN QUALITY

Over 200 U.S. Patent grants justify the pride of this company in its many contributions to the textile industry. Mills the world over know the advantages of the standards in Quality and Service set by the trade names STEHEDCO and SOUTHERN. Tracing briefly the early developments which led up to these standards, they find that the early pioneering efforts of this, now, huge organization, have culminated in accomplishing its many objectives.

Through its constant research and experimentation it has brought about many major changes and improvements in loom harness equipment and will continue to seek future improvements, through constant research and development of new materials, designs, construction and methods.

Products that "Weave the World's Needs!"

have a definite point. We have encouraged their efforts to export more as a means of regaining economic stability and solvency, certainly an objective we ardently desire for them. Now that the program pinches a little here and there, we begin to slap higher tariff rates and quota restrictions on their goods.

Americans, too, are bothered over trade restrictions. The United States Council of the International Chamber of Commerce has just inaugurated a campaign to remove "costly and unnecessary red tape in international trade and travel." Its committee on trade barriers, comprising some of the nation's leading businessmen, has this to say: "If import and export controls, currency restrictions, quotas and all the complicated, non-productive documentation and delays are here to stay, we can foresee only a contracting world trade and, thereby, a contracting world economy. Elimination of these handicaps is in the direction of an expanding world trade and improved standards of living."

The committee's report had nothing to do with the British complaints, as such, but its general theme of doing away with restrictive regulations—most of them maintained by special interests fearful of competition in a free market — is most pertinent. — *Chattanooga* (Tenn.) *Times.*

The Textile Industry

A GENERATION ago the slogan which started the movement of the textile industry from New England into the South was—"The Mills to the Cotton." Manufacture the cloth there where the cotton grows.

Just now the South is attracting woolen mills from New England, and while other factors enter into this movement, the development of the synthetic fiber industry in this region of the country is quite generally recognized as contributing to this interest of the woolen manufacturers in the South.

And, again, it may be said the mills are coming to the fiber. They are coming where the synthetic yarns are being made.—*Spartanburg* (S. C.) *Herald.*

Tribute To Worker

THE acme in tributes is now being paid the Southern textile worker by New England mill operators. They credit the Southerners to a large degree in decisions of many to move their plants to Dixie.

Time was, and easily remembered by many, when purchasers of textiles felt New England manufacturers could produce superior goods. They thought the Northern worker had more know-how. It was erroneously felt by some that fine goods could only be made in New England.

This illogical belief was discarded none too soon. Southern mills were quick to improve their production standards. The calibre of workmanship also became better.

The extent to which the latter is true is now being revealed. Several representatives of the New England textile industry have said they cannot meet Southern competition because of the "labor factor."

The individual worker in the South has the right to feel proud of his accomplishment. He is admittedly a better worker than his New England counterpart. He is doing his share in helping to further industrialize the South and contribute towards greater job security!—*Greenville* (S. C.) *News.*

WANTED

MORE IRON AND STEEL SCRAP . . . OF ALL KINDS!

Steel mills and foundries need more scrap.

Not just "production" scrap from metal-fabricating plants . . . but also all sorts of *idle* iron and steel—from all types of plants.

Search *your* plant for this idle metal . . . work with your local scrap dealer to increase supplies of badly-needed iron and steel scrap.

What to look for . . .

obsolete machines, tools and equipment, no-longer-used jigs and fixtures, worn-out or broken chains, wheels, pulleys, gears, pipe, tanks, drums and abandoned metal structures. Non-ferrous is needed, too!

Stehedco and Southern

LOOK FOR
STEHEDCO and SOUTHERN
TRADE NAMES THAT LEAD THE FIELD
IN SERVICE

The service obtainable from the loom harness manufacturer is as important to the mill as product quality. The Steel Heddle Manufacturing Company, not content with producing better loom harness equipment and accessories, has made every effort to provide the most efficient and economical distribution and service possible. The location of their many large plants and branch offices has been strategically planned for the benefit of the textile industry.

Competent staffs of Field Engineers are maintained for the express purpose of assisting with mill problems. These men appreciate new applications; they understand what successful product performance means.

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11-10

Products that "Weave the World's Needs!"

Look...

No Sharp Corners

No Sharp Edges

. . . smooth Inside and Out

. . . and permanently smooth! No snagged hands, no damaged yarn, and no danger of cutting, tearing, or gouging machinery or work.

Excel
Utility Truck
No. 1300

This EXCEL No. 1300 Truck is made of heavy 16 gauge non-rustable galvanized iron, metal locked and riveted, to outlast any ordinary truck.

Made to customers' specifications.
Thousands already in use.

Representatives:

Mr. N. W. Eurey........Lincolnton, N. C.
Mr. Paul Eurey........Lincolnton, N. C.
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EXCEL
Textile Supply Co.
"Excel Trucks Excel"
LINCOLNTON, NORTH CAROLINA

The SOUTHERN TEXTILE HERITAGE

By W. M. McLaurine

– Part Three of a Series –

ROMANTIC and realistic is the history of the origin and history of the Southern cotton textile industry of the South as it is so ably portrayed in Broadus Mitchel's "Rise of the Cotton Mills"—a thesis which he wrote for his doctorate at Johns Hopkins University. These epics have also been given special treatment in various magazines and trade papers.

The early urge was portrayed graphically in stories of social and industrial progress by William Gregg (1800-1867), the father of Graniteville, S. C., who proclaimed the industrial salvation of the South through the utilization of its own raw products and the social uplift of its people through home markets and economic opportunities for its many destitute families.

His company's social and industrial policies became a pattern and an impetus for progress. D. A. Tompkins (1851-1917) was another man with vision and energy and persuasive personality. He was a builder of mills, furnishing plans and machinery for plants in his area in and around Edgefield County, S. C. Later he was a writer, a journalist, a publicist and a promoter of education in all of its branches and particularly in the establishment of trade schools. His efforts assisted in consolidating the industrial training of people until textile departments were established at Clemson College, S. C., and at North Carolina State College of Agriculture and Mechanic Arts.

The *Charlotte Observer*, one of the most influential newspapers in the South, was the forum from which he delivered his convincing messages to eager and at times doubtful ears.

The Atlanta Cotton Exposition (1881) had on its grounds a complete cotton mill open to view for all who desired to see this much discussed and hoped for salvation of the cotton farmer. A feature attraction for one day was the marriage of a young couple amid the whirling machinery which had produced the cloth out of which the wedding garments of bride and groom were made.

The Exposition Cotton Mills of Atlanta, Ga., represent the full grown plant of the transferred machinery from the old exposition grounds of that early date.

The history of rivers and dams, of power, and good mode of railroads and trucks are all woven into this romance of gigantic struggle for life, liberty and the pursuit of happiness for every person to whom it could extend its aid and influence. All of these textile influences, which are now so recognized and proudly regarded, were literally driven through almost every social, political and economic adversity conceivable. Poverty, prejudice, inexperience, criticism, credulity, distance from market, freight rates, lack of machinery and inability to buy, these and many more indicate that men of vision — indefatigable energy, and undaunted courage and a never dying faith in the textile manufacturing possibility were at its helm.

Nor can those who plied the looms, and tended the spindles and adapted their minds to industrial demands and their hands and fingers to the processing needs be overlooked. They, with their able services, have wrought a richly deserved chapter in the romance. They had their hardships along with the owners and operators and they discharged their part well. When we look back to living and working conditions in those days and now see the average industrial plant with its modern building equipment and layout, many are prone to wonder if they would have had the "grit and guts" to have pushed on and on until we could hand to our sons such a heritage as we now enjoy.

In Winston Churchill's language the journey has been one of "blood, sweat and tears" but its success has proven that the effort was well worthwhile.

Is this simply a story of fiction? Read the life of William Gregg and review his trials with his plant established in 1837. Read his reverses up to and through the War Between the States, the political, economic and social controversies through which he traveled. The opposition of his board to his policies and his proffered resignation and its refusal; his trips to England for market and machinery. Finally broken in health, with broken machines and demoralized people, the mill dam broke. "For two days he was up to his waist in water, and was so busy that during this time of mental strain and physical exertion, he took almost no food." The strain was too much. To bed he went and died Sept. 13, 1867. A martyr for the cause of textile progress.

Let us look at one more picture during those early days. The leading figure in this picture is Edwin Michael Holt (1807-1884), Alamance County, N. C. On the Alamance River in the early 1820s in the midst of a cotton growing county stood the cotton factory of Holt and Carrigan, 1,350 spindles and 11 looms.

"The looms were employed in the manufacture of coarse cotton goods suitable for the use of Negroes. The mill was lighted with whale oil lamps (though they later tried out camphene lamps) and was heated by wood burning stoves. They worked 12 hours a day and wages were 25 cents a day for women and 40 cents for men; children worked for ten to 20 cents. The product was at first bunch yarn put up into five-pound bundles and was sold to peddlers to be peddled out through the country or hauled by wagons to various towns for sale as hand knitting yarn or weaving yarn for hand looms. Some yarns were shipped to Philadelphia, going by wagon to Petersburg and thence by packet.

"To Edwin M. Holt is due the honor of building the first colored cotton fabric manufacturing plant in the South—the Old Alamance Mill in 1837. In 1853, a Frenchman traveling through the country and who was a dyer, stopped at the mill and offered to teach them how to dye yarn for the sum of $100 and his board. Mr. Holt accepted this offer and securing an 80-gallon copper boiler (used for cooking turnips for cattle food on the farm) and a cast iron wash pot, started with this equipment to dye yarns for sale. Later full dye equipment was secured, four box looms installed and the manufacture of Alamance plaids began."

The influence of this early industrialist extended far and wide and will be referred to again as its extensions touched the Cone Export and Commission Co. later and inspired the late William A. Erwin to his successful career.

a Cloth Finisher Asks...

"What is its overfeeding range? How fast will it operate? Will it handle all types of fabrics? all weights? all finishes? Is it equally effective on all colors? — all shades? Is it completely adjustable? Will it attach to my tenter frame? Can I transfer it easily from frame to frame? Does it operate on a new principle?"

Here are the Facts —

The M&W Positive Overfeed with Selvage Guider regulates overfeeding positively and uniformly from —5% to +30% for all fabrics — any weight or finish — at speeds up to 100 yds. per minute. A simple turn of the wheel changes amount of overfeeding.

Pinning of each selvage on the tenter chain is adjustable, can be held within 1/16" tolerance. A photo-electric cell engages selvage — *instantaneously* corrects sidewise variations, is adjustable to react with equal efficiency to all shades and weights of fabric.

This all-ways adjustable unit attaches to practically all existing tenter frames (when equipped with M&W pin type tenter chains), is easily transferred from one frame to another.

On an important new principle, guider arm brings cloth to meet the rails instead of rails to meet the cloth — gives you greatly increased speed and accuracy by moving ounces of aluminum instead of hundreds of pounds of cast iron.

Send for bulletin — free on request.

This device is manufactured exclusively in the U.S.A. under license from John Dalglish & Sons Limited of Thornliebank, Glasgow. Have us estimate the advantages of installation for *your* plant. Get our prompt cost-cutting counsel without obligation.

M & W

MARSHALL and WILLIAMS CORPORATION
PROVIDENCE, R. I. • GREENVILLE, S. C. • NEW YORK, N. Y.

They're All Scrap

They're all needed to keep steel production up

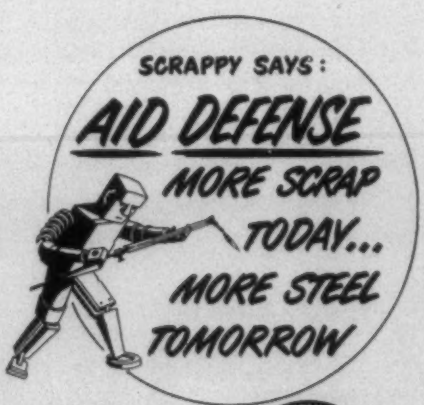
...TO AID DEFENSE

Every pound of unused iron and steel you have is needed to help steel mills and foundries keep production up to rising capacity.

Scrap inventories are alarmingly low. Mills that normally maintain inventories of several months, are now down to a day-to-day basis. Shutdowns are threatened.

One way we can maintain desired level of both military and civilian production is for you to *dig up* and *turn in* your iron and steel scrap now.

Get in touch with your local scrap dealer and write for the free booklet, "Top Management: Your Program for Emergency Scrap Recovery" to Advertising Council, 25 W. 45th St., New York 19, N. Y.



NON-FERROUS SCRAP IS NEEDED, TOO!

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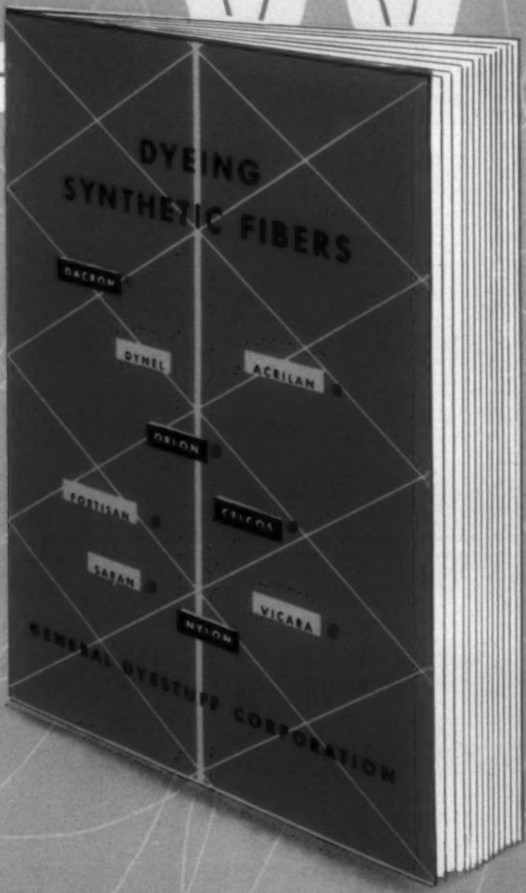

a revised Edition of

DYEING SYNTHETIC FIBERS

This is our original brochure *Dyeing Synthetic Fibers* brought up to date. The text includes new data and techniques developed since the last publication.

So much work is in progress on the dyeing of the new synthetic fibers that a report of the latest developments is valuable and timely. This brochure contains G.D.C.'s up-to-the-minute recommendations.

You can obtain your copy from our nearest sales office.

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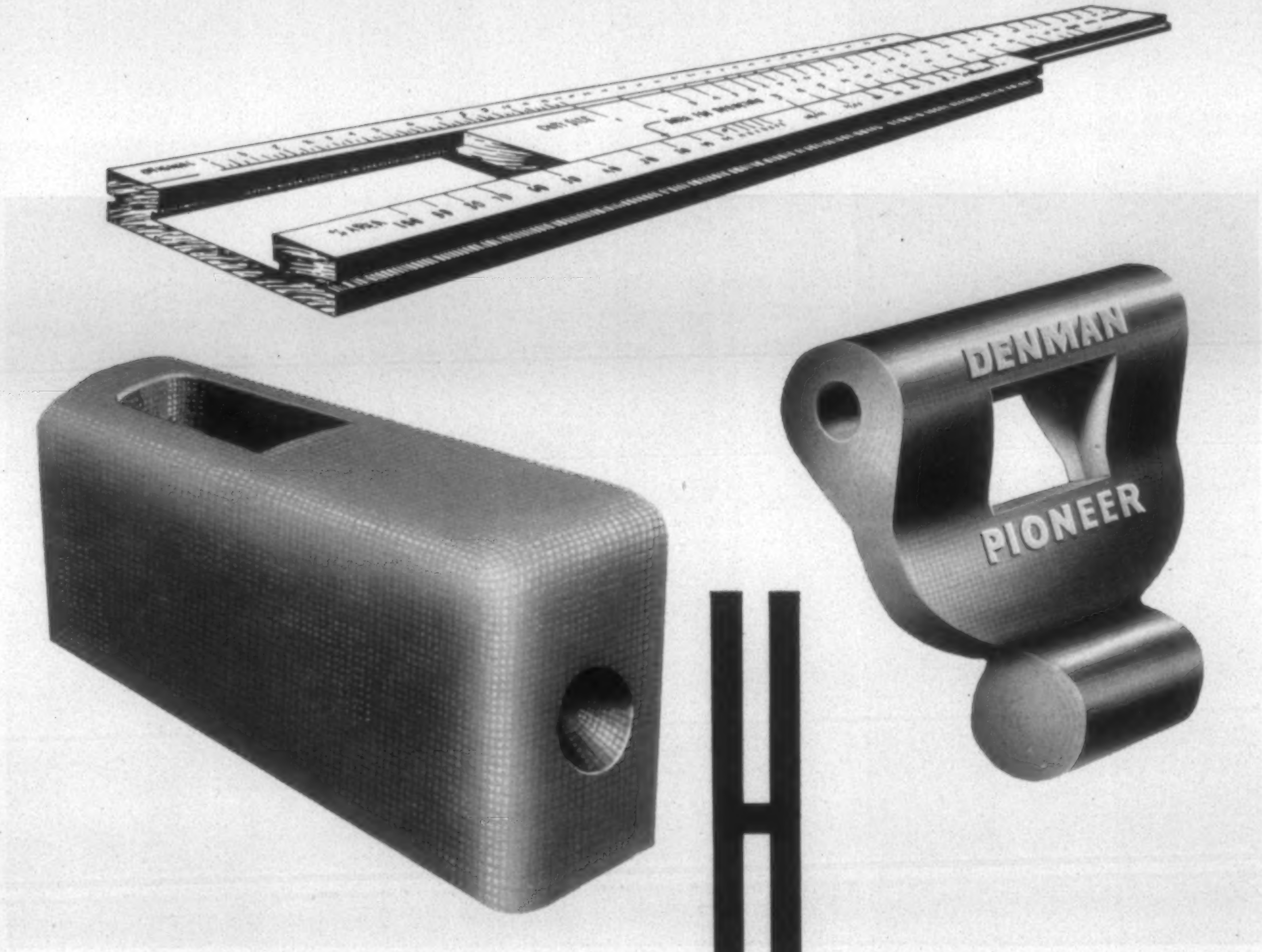

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Mill men who have written the specifications for Denman Pioneer Pickers measure by this standard: "Lowest Cost Per Loom Per Year."

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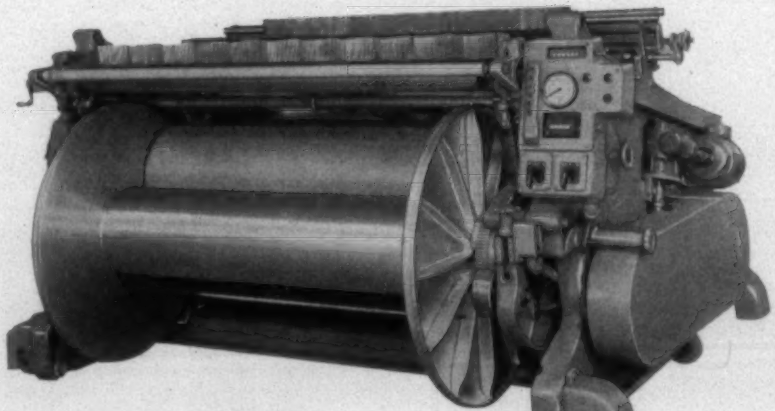
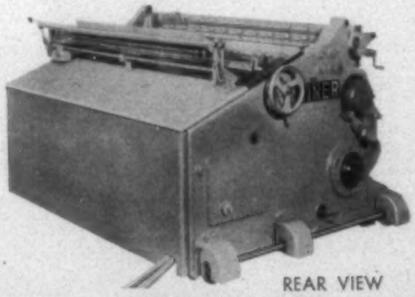
REINER BEAMING MACHINE

(MODEL HD)



FRONT VIEW



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WATCHING WASHINGTON

(Exclusive and Timely News from the Nation's Capital)

Truman's claim to "inherent powers" to seize property without process of law is shaking Congress out of its lethargy for the first time in four years. The country's uproar over the steel seizure stunned Truman's adherents in both branches. It awakened others to the political value of reasserting the powers of Congress as a branch of government, and of assuming responsibility as a check and balance on administrative high-handedness and obstinacy.

In practical application, Congress has been abdicating its powers since 1948 to the chief executive and the bureaucrats, and allowing them to impose what they wished. Truman has often denied documents and records to Congress, and forbidden his aides to testify before committees. In every instance he has had the approval and applause of "rubber stamp" members.

Majorities in both the House and the Senate have been dubious all the while of the legality or real need for price controls, and more so to the claim of an "emergency." They have seen the whole economic structure undergoing change under these processes, with no evidence of a real emergency. But fearful of possible adverse reaction among voters, they have not offered a real protest or resistance.

Many House members of both parties had a bad time of it with the voters when they went home for the Easter recess. Resentment over taxes and spending was keen. They were surprised at the anger over the steel seizure. The Korean mess produced some heavy jolts, too; home folks said to fight or get out.

Under the Truman design of growing power, the states appear to have become dependencies, looking to the federal treasury for money. Welfare schemes have saddled immense costs on the states. Some legislators appear intent only on prying loose funds for their states. They are in the front rank of the big spenders, resisting every move for economy.

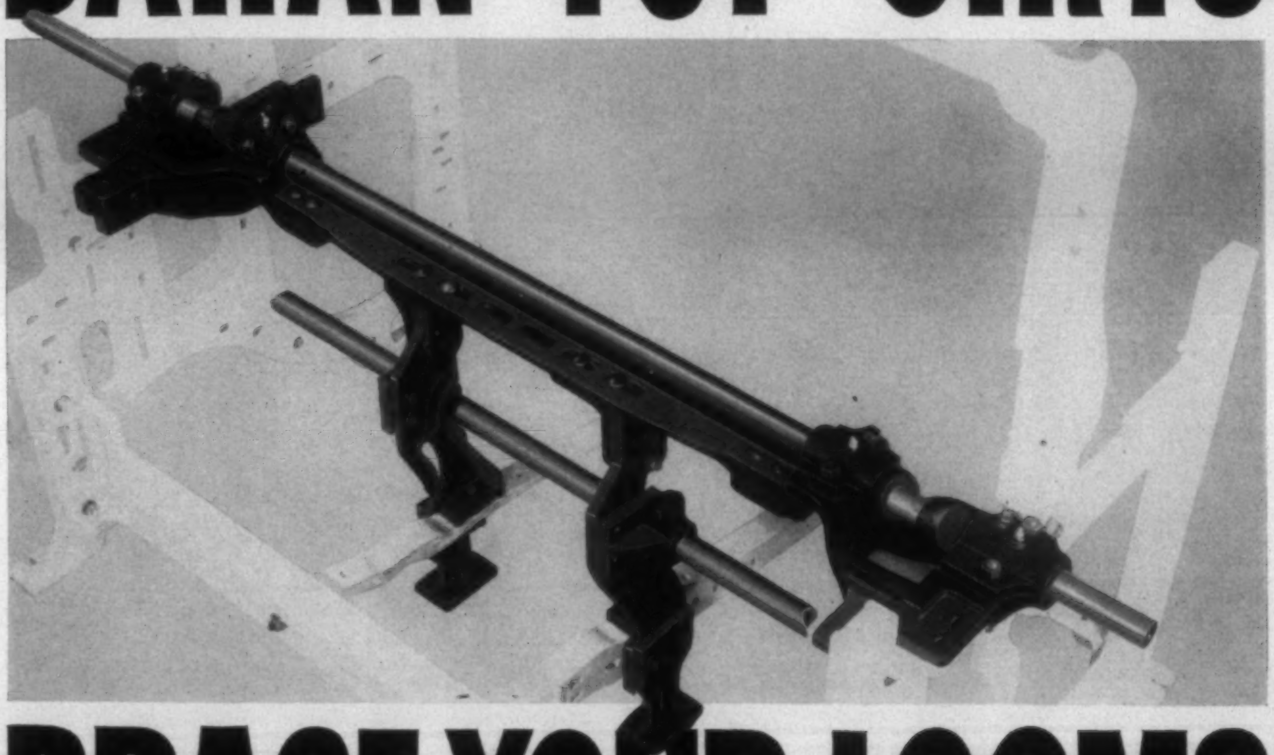
Mature members of the Senate say that Truman's actions in the steel case has laid down a perfect pattern for a future dictatorship in this country. His actions are more significant in that he acted at the behest of leaders who head unions heavily infiltrated with Communists, and who have long urged more concentration in big government in Washington.

It is pointed out in the Senate that Truman bowed to Federal Judge Pine, but in the future a power-hungry President, in control of Congress, might not do so. Truman is relying strongly on the Supreme Court, packed with New Dealers since 1937, to uphold his claims of undefined and unlimited powers. But a strong-willed President and weak Congress would scarcely need the Supreme Court.

Whether the big unions are at last breaking their own backs in trying to apply arbitrary pressure through government remains to be seen. Popular resentment over the havoc that comes with strangling strikes imposed on the country is again mounting to a high point.

Senator Taft says the steel debacle is a deliberate move to evade and break down the Taft-Hartley Law. This law protects workers against their own

BAHAN TOP GIRTS



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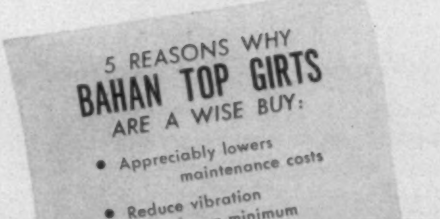

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union bosses, he says, which is a reason for attacks against it. He says particular objectives are against abolition of the closed shop and the secondary boycott provisions, and that the law may well be called the "Union Responsibility Act."

Extension of the labor law concept to control strike possibilities at the end of the 80-day waiting period is gaining ground in Congress. Howard Smith (D., Va.) has brought a bill into the House under which if a settlement was not reached in 80 days, a federal court would name receivers for the companies and unions involved, with the receivers appointed by the court.

Price controls and other economic controls, and W.S.B. as a substitute for wage controls, are rapidly coming to the road's end. It is doubtful at this moment if Congress will renew the price control act, but if so, the days of W.S.B. appear to be numbered. Congress has now learned that price controls with uncontrolled wages simply do not work, even with industry seizure.

W.S.B. is in for a stem to stern going-over by the House Labor Committee, including the roots of its claimed powers. Chairman Barden (D., N. C.) wants to know if W.S.B. is trying to sidetrack N.L.R.B., and repeal the Taft-Hartley Law by indirection and by-passes.

W.S.B. Chairman Feinsinger is resigning without awaiting the outcome of the steel dispute. Other members are expected to resign soon. Feinsinger, a former War Labor Board member, acted in a similar role as head of Truman's fact-finding board in the steel dispute of 1946. His findings then were identical with the recent findings. He thinks the Taft-Hartley Law treats labor much too harshly.

John Edelman of the C.I.O. Textile Workers Union is the chief architect of the report of Murray-Morse-Humphrey Senate sub-committee attacking the textile industry. Almost the whole report, it is learned, was written under the direct scrutiny of Edelman, and is his product, rather than of the subcommittee.

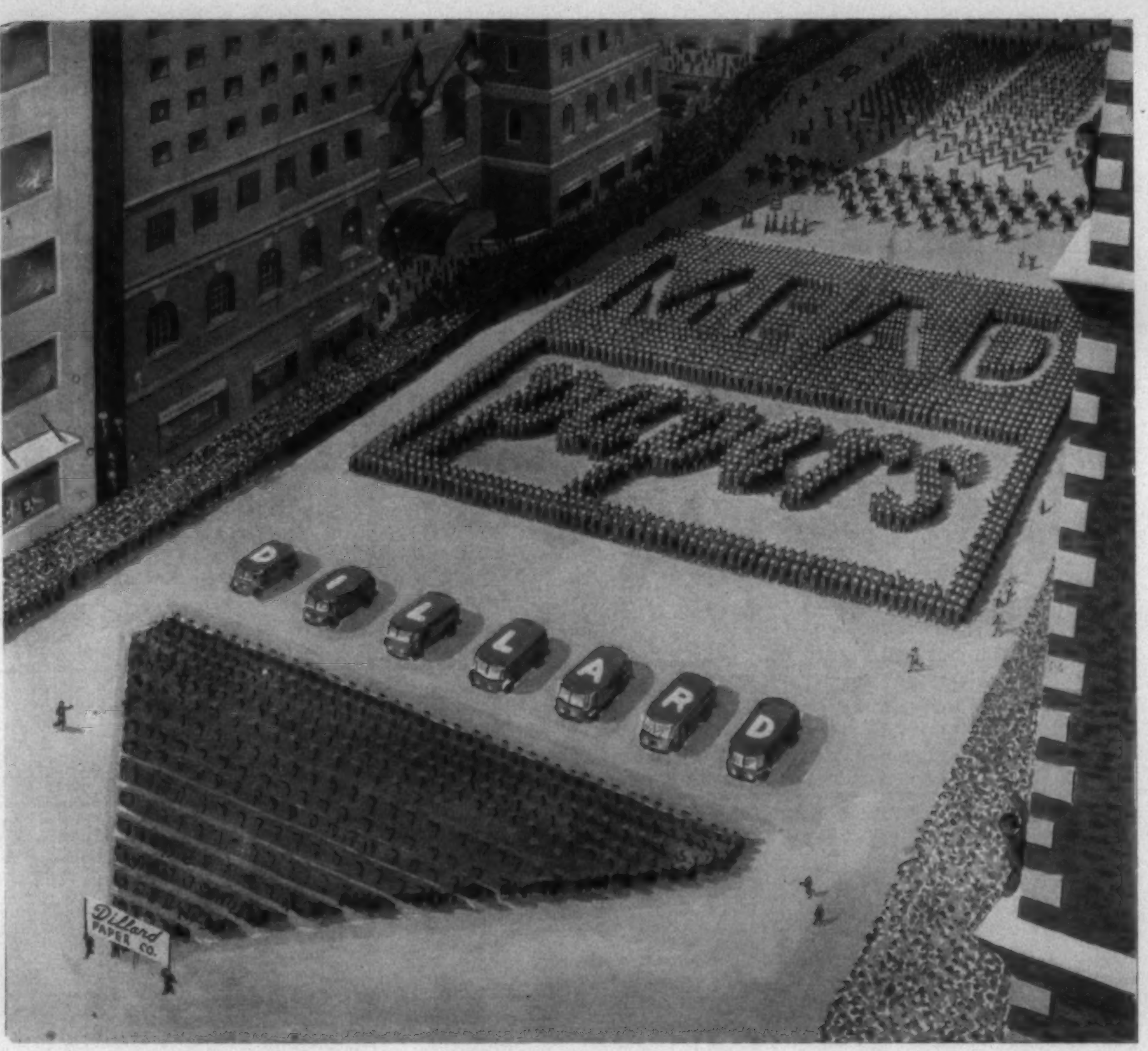
Union bosses claim that failure to win Operation Dixie, on which they spent $11 million, is costing them heavily in the North now. They blame this failure for mills moving South, for alleged wage cuts, and for loss of jobs. They say output per worker is higher in the South, and Northern mill owners are demanding that "feather bedding" in work practices be eliminated.

What the union bosses are learning is that their arbitrary post-war practices with employers are not paying off. Wages were forced up, and work loads reduced, to the breaking point, driving employers out of business or to other localities. Some employers granted high wage demands on union pledges to "unionize the South" and later found themselves caught when Operation Dixie failed dismally.

The report demands amendment to the Taft-Hartley Law to ban authority of state and local courts to enjoin labor disturbances and disorders. It asks that use of the National Guard be prohibited in any strike situation, tighter curbs be put on "free speech" of employers, and the labor law otherwise amended to prohibit "primitive policies" by mill owners in the South.

Senators Taft and Nixon issued a minority report in which the majority trio were denounced as putting out "an amazing and unjustified slur on a great section of the country." This report recounted the shootings, beatings and violence incident to "Operation Dixie" in the South, and said the majority had not a word of reproach for those acts.

The Taft-Nixon document went into the union record of violence, lawlessness and dynamiting in the South, and said there is no lawful power to



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restrict functions of state and local courts. The majority report, said Taft and Nixon, "depicts Southern employers and citizens as resorting to weapons of totalitarian regimes," and charges "a totalitarian technique reminiscent of Hitler and Stalin." No such condition exists, they said, even in slight degree.

The report of the majority trio has been in the making for 2 1/2 years, and rewritten more than a dozen times. The first version was withdrawn as "wholly inaccurate," and a tissue of falsehoods. It had been written by the trio's staff, composed chiefly of former employees of unions. Even the report now is charged with being "replete with falsehoods," and merely a piece of "union misrepresentation and propaganda."

Record-breaking high taxes on 44 million people are causing more jitters among house members up for re-election. Huge turnouts of voters in primary cotests point to a lot of people voting in November. Every House member says that complaints against taxes are growing in volume.

Some House members with an unbroken record of voting for Truman proposals say that with his withdrawal their chances of coming back are slim. They were firmly committed to riding Truman coattails to re-election, but now the coattails are missing. Some of them are wildly urging that the breach with the Southerners be healed at any cost.

Taft intends to blast Eisenhower as a Fair Dealer, and as Truman under another label, as soon as the General gets into the campaign, as he must. With Truman out, Fair Dealers are flocking to the Eisenhower wagon. Taft will strike hard that Eisenhower does not envision change in government. Truman continues to speak highly of the General in press conferences.

G.O.P. leaders are keenly alert to a move to nominate Eisenhower by both parties. They see a possibility that if Eisenhower is the G.O.P. nominee, and the Democratic convention becomes deadlocked over its own candidates, a spontaneous, New Deal inspired, Eisenhower demonstration may be launched, intent on making him Democratic nominee, too.

A two-party nomination for Eisenhower, say some G.O.P. leaders, would scuttle the Republican Party without trace, and the two-party system of government. There would be no opposition party in Congress, and a President without party checks and balances. Almost the same thing could happen, they say, if the Democrats put up a very "weak" candidate.

Proposed ceiling by the House of $46 billion on military spending next year would imperil the nation, Administration spokesmen assert. This ceiling would cut last year's commitments, in all arms spending, by $6.5 billion. The House has also cut $4.5 billion for arms spending next year. Truman asked initially for $52 billion for next year.

Southerners say Truman knew he could either run, split the party, and probably meet bitter defeat, or seek a compromise with them. He chose to withdraw instead. His close advisers did not believe the "civil rights" issue was worth fighting over, but C.I.O. leaders and New Dealers were adament in insisting on retention.

Truman is expected to put the blame for the "slow rate" of arms production on the "softness" of the people rather than the armed services. The intent is to cover up indecision, manipulations in planned economy, and efforts of labor leaders to force the union shop and constantly rising wages on industry.

Canadians are being given another tax reduction this year for the fourth straight year. Finance Minister Abbott says the trend may continue in 1953. Canada has profited from U. S. billions sent to England and other countries and subsequently used to buy Canadian products.

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Emil, George & Lewis Again

A recent defection in the ranks of leaders of the Textile Workers Union of America (C.I.O.) is expected to make itself felt in North Carolina—with indications that the union's organizing and membership drive will probably fall flat on its face in the state.

For years, there has been a deadly duel for power in the union between Emil Rieve, the T.W.U.A. president, who has ruled the union with a mailed fist for many long years, and George Baldanzi, the slick-tongued orator, who has been executive vice-president of the C.I.O. union.

Rieve and Baldanzi have been at each other's throats for the past several years, each trying to wrest control of the union, the third largest C.I.O. organization in the country with some 400,000 members.

Recently, at the union's national convention, the battle was fought to a bitter finish, with Rieve emerging victorious, and Baldanzi with a bloody nose. In the race for union president, Rieve beat Baldanzi, 1,223 votes to 720.

However, the most interesting aspect of the election comes in this fact: most members of North Carolina's T.W.U.A. delegation to the convention were Baldanzi supporters. Baldanzi's supporters in the state included Lewis Conn of Greensboro, state T.W.U.A. director, and many other top textile union brass, with only a few Rieve supporters in the crowd.

Conn was so enthusiastic a supporter of Baldanzi's that he stuck his neck out to run against William Pollock, general secretary-treasurer of the union, and one of Rieve's lieutenants. Conn lost 1,253 to 628. This was the same Pollock, who Herman Cone, Cone Mills president, slapped down verbally about a year ago for being a liar.

With Rieve firm in the T.W.U.A. saddle, chances are that a purge of some union leaders may get under way, especially in North Carolina where there was a lot of pro-Baldanzi sentiment. Chances are that when the heads start rolling in the dust, T.W.U.A. strength in the state will weaken considerably, and North Carolina will get rid of some of its trouble-makers. The hope is that they will not be replaced by others of the same ilk.

Already James Bamford, the Rieve appointee in charge of the C.I.O. in the South, has begun a purge of union leaders who do not bow down before Rieve. He has already fired seven in North Carolina and four in South Carolina.

A report from Greensboro states that Southern T.W.U.A. leaders are preparing to form a new organization.

T. W. U. A. Finances

The Textile Workers Union of America (C.I.O.) which has long been trying to tell the textile industry what to do with its money, apparently doesn't know how to take care of its own.

The union's recent financial report covering a two-year period from March 1, 1950, to Feb. 29, 1952, shows that during this period expenditures were greater than income (quite an unbusinesslike condition to say the least.)

William Pollock, general secretary-treasurer of the union, in a very laconic and sad report, points out that it is the first time in the union's career that the red ink outweighed the black ink on the financial ledgers.

Why the large expenditures? In a capsule, Pollock tells the tale. "Numerous and expensive strikes, reduced dues collections resulting from mass unemployment, heightened employer resistance to new organization, increased costs for all T.W.U.A. operations—these caused the decline."

As a result of these raids on the union's treasury, the T.W.U.A. had net assets as of Feb. 29, 1952, of $3,401,650, while two years earlier, on Feb. 28, 1950, its assets were $3,854,875.

One other interesting item in the financial report is the amount the T.W.U.A. spent on the disastrous Southern Textile strike in 1951. The total amount dished out in this vain effort was $1,458,542 by the union's own reckoning. Maybe the T.W.U.A. ought to stick to its own financial knitting before it starts telling textile mills how to spend their money.

Mayor Dislikes Textile Mills

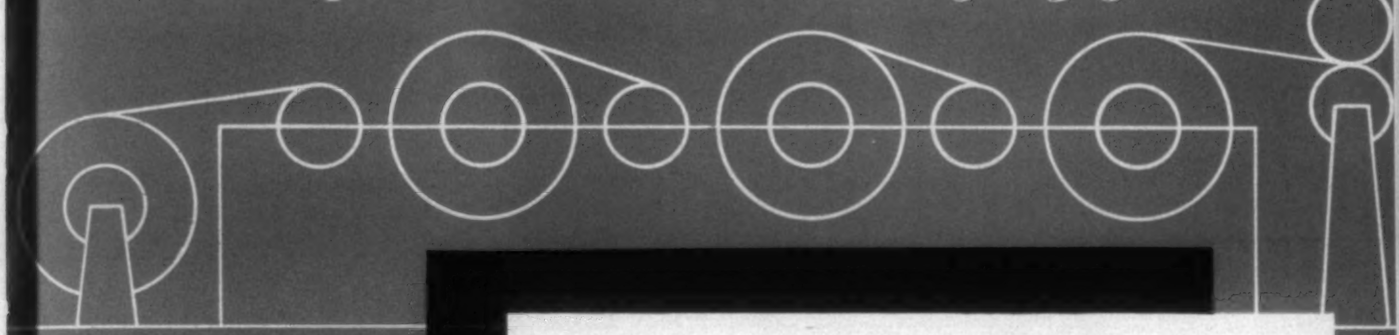
The following remarkable letter was written by Mayor Edward S. Pierce of New Bedford, Mass., to *America's Textile Reporter* and was published by them:

Gentlemen:

I received the clippings in regard to the Wamsutta mill and I might say that I do not think that means a great deal at the present time. Neither the Wamsutta nor any other New England mill is going to obtain steel for a long time to come; on that I have definite assurance.

It is doubtful whether the textile industry is any asset to the community but until something else is found, we will have to live in it. I also notice in the clippings mention of the city helping industrial plants which is something I favor if handled carefully;

in the open boil-off of cotton grey goods ...



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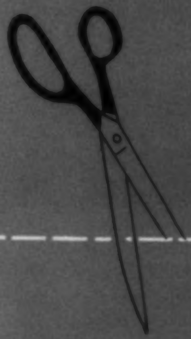
   Cleaner, wax-free goods produced by alkali-NACCONOL solutions minimize bleach-solution consumption.
3. ***Shorter Boiling Time***
   Satisfactory boil-off can be obtained in ⅓ to ½ less time if ¼% NACCONOL is added to a 1% Caustic solution.



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> however, it might interest you to know that a majority of the House (State Legislature) members from this district and several of my Councillors (New Bedford City Council Men) have opposed any activity which might bring industry into this city.
>
> I presume you are interested in the situation or you would not have sent me the clipping and when you are in New Bedford, if you have any constructive ideas, I will be very glad to see you.

There is not a town in the South which would not welcome the Wamsutta Mills or a mayor who would not have sense enough to know that the Wamsutta Mills payroll would mean a great deal to the merchants, bankers and all other businesses in his community.

If the Wamsutta Mills moves South, it will not be to secure a lower wage scale because the slight difference between wages North and South is not enough to justify moving.

TEXTILE INDUSTRY SCHEDULE

—1952—

May 29-31—Annual convention, **SOUTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, The Cloister, Sea Island, Ga.

June 6-7—Annual outing, **PIEDMONT SECTION, A.A.T.C.C.**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 6-7—Annual outing, **SOUTHEASTERN SECTION, A.A.T.C.C.**, Radium Springs Lodge, Albany, Ga.

June 12-14—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 13-14—**CAROLINAS-VIRGINIA PURCHASING AGENTS ASSOCIATION**, Grove Park Inn, Asheville, N. C.

June 23-27—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Hotel Statler, New York City.

Aug. 22-23—Summer outing, **SOUTH CENTRAL SECTION, A.A.T.C.C.**, Chattanooga (Tenn.) Golf and Country Club.

Sept. 10-11—Fall meeting, the **FIBER SOCIETY**, Princeton, N. J.

Sept. 13—**PIEDMONT SECTION, A.A.T.C.C.**, Charlotte (N. C.) Hotel.

Sept. 13—**SOUTHEASTERN SECTION, A.A.T.C.C.**, Atlanta, Ga.

Oct. 3—**TEXTILE QUALITY CONTROL ASSOCIATION**, Raleigh, N. C.

Oct. 6-11—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

Oct. 16-17—Annual meeting, **NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION**, The Carolina, Pinehurst, N. C.

Nov. 6-8—Annual national convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS**, and **TEXTILE DYEING AND FINISHING EXPOSITION**, Statler Hotel, Boston, Mass.

Nov. 15-21—Annual meeting (as part of a six-day cruise to Bermuda from Norfolk, Va.), **CARDED YARN ASSOCIATION** and **SOUTHERN COMBED YARN SPINNERS ASSOCIATION.**

Dec. 6—**SOUTH CENTRAL SECTION, A.A.T.C.C.**, Hotel Patten, Chattanooga, Tenn.

— 1953 —

Feb. 18-20—**COTTON RESEARCH CLINIC**, General Oglethorpe Hotel, Savannah, Ga.

May 14-16—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

June 29-July 3—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 17-19—Annual national convention, **A.A.T.C.C.**, Conrad Hilton Hotel, Chicago, Ill.

— 1954 —

April 26-May 1—**AMERICAN TEXTILE MACHINERY EXHIBITION**, Atlantic City (N. J.) Auditorium.

Annual convention, **A.A.T.C.C.**, Atlanta, Ga. (Dates not yet selected.)

If they move South it will be primarily because they will have employees who will be friendly and will come nearer giving a full day's work for a full day's pay.

If they move South it will be because they know the citizens of the community in which they locate will be friendly and will appreciate the value of such an industry to their community.

If they do move it will be because they will know that they will not find any such mayor as Edward S. Pierce. We doubt that there are many others like him in New England.

If they move South it will be because most Southern states have right-to-work laws which, while protecting the union member in his right to be a member of a union, also protect the employee who decides for himself that he will not join a union.

If they move South it will be because they know that they will find legislatures which appreciate industries and which will refrain from excessive taxation and excessive regulations.

The mayor of New Bedford says that he doubts whether a textile industry is any asset to a community.

We are very definitely of the opinion that a mayor like Edward S. Pierce is a liability, instead of an asset, to any city.

The Humphrey Report

Senator Humphrey of Minnesota, a hater of the South and one who believes that labor union racketeers should have absolute and complete control over all industries, has headed a subcommittee of the Senate Committee on Labor and Public Welfare which has prepared and printed a 92-page attack upon Southern industries.

The report makes it appear that all labor union leaders and organizers are angels and all managers of industries are devils.

Actions of the pickets during the strike at the American Enka Corp. at Lowlands, Tenn., are pictured as lawful and harmless whereas it is well known that they were guilty of many forms of violence in an effort to prevent American citizens from entering their chosen places of employment.

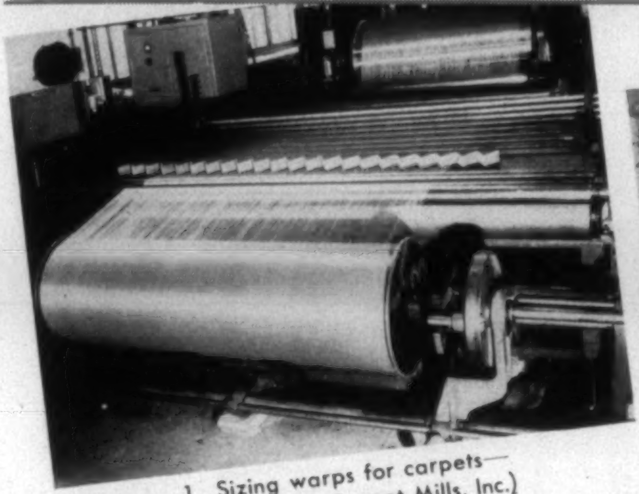
The report as prepared under the direction of Senator Humphrey is filled with false statements and misrepresentations.

He vents his ire upon Southern mill employees for refusal to join a union and pay dues and upon managers of textile plants for their refusal to encourage the organization of unions.

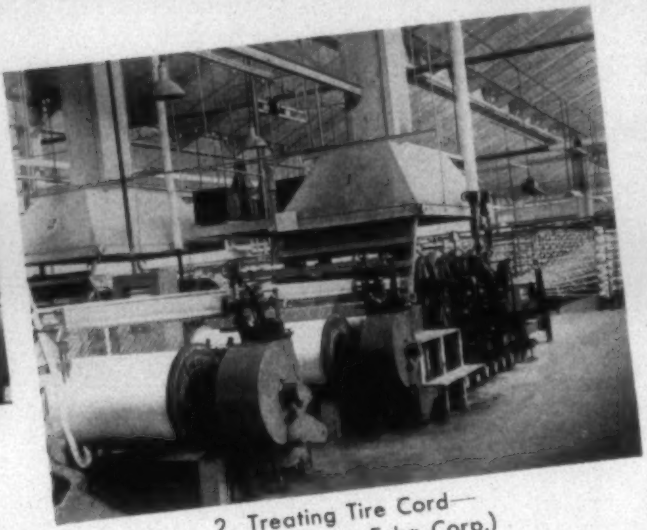
Before the textile industry of England came fully under the domination of labor unions it had 56,000,000 cotton spindles but today it is a sick industry with less than 27,000,000 spindles.

Before New England textile mills came under union domination they had in excess of 21,000,000 cotton spindles but today they have less than 4,000,000.

In spite of those examples Senator Humphrey would have the managers of textile mills in the South encourage their employees to accept the leadership and control of labor union racketeers.



1. Sizing warps for carpets—
(Mohawk Carpet Mills, Inc.)



2. Treating Tire Cord—
(American Enka Corp.)

Johnson WARP SIZERS

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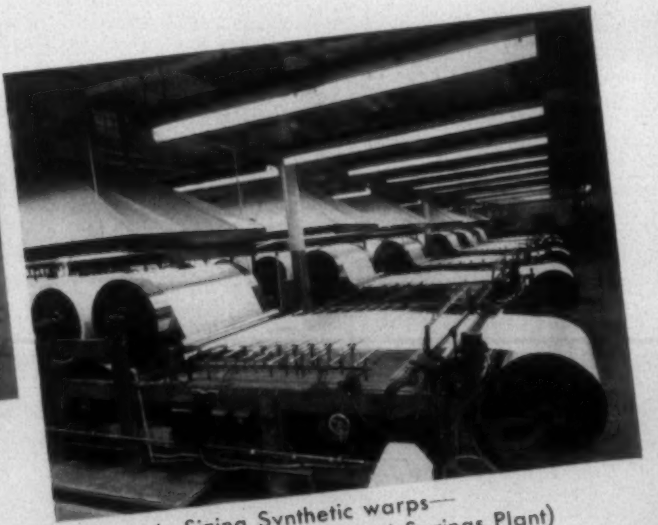
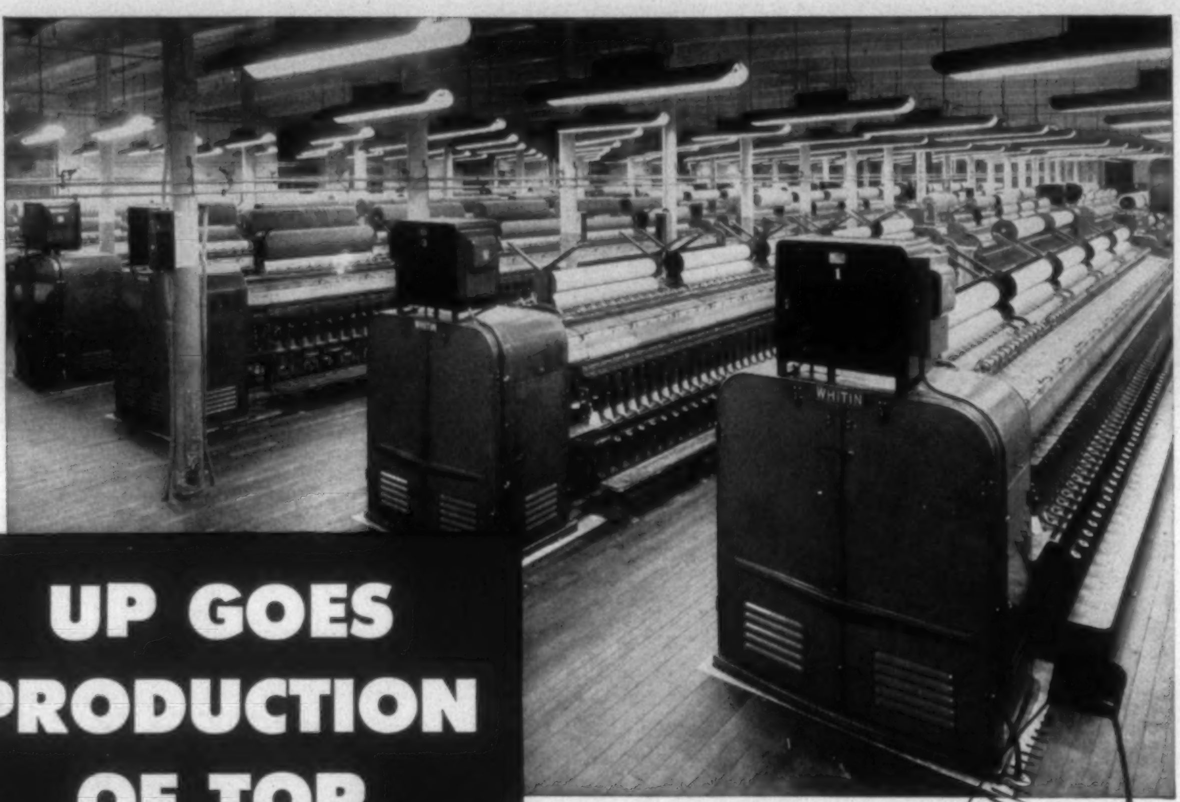
3. Sizing Cotton warps—
(A New England Textile Mill)



4. Sizing Synthetic warps—
(Robbins Mills, Red Springs Plant)

Charles B. Johnson

PATERSON, NEW JERSEY



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textile bulletin

VOL. 78 MAY, 1952 NO. 5

Bugaboo Of The Third Shift Decried At Georgia Meeting

ELIMINATION of third shift operations to offset "the depressing effect on our price structure which is caused by the excess production of that third shift" was proposed by Henry W. Swift before the 52nd annual convention of the Cotton Manufacturers Association of Georgia held April 16-18 at Boca Raton, Fla.

Addressing the largest attended convention ever held by the association, Mr. Swift, executive vice-president of Swift Spinning Mills, Columbus, Ga., and retiring president of the group, pointed out that although the number of productive units in the industry has declined, "the installation of high-speed, automatic equipment, coupled with multiple-shift operation, has created a productive capacity that exceeds the normal demand for our products."

In the president's annual address to the association's 52nd annual meeting, Mr. Swift offered two solutions to the problems besetting this industry today.

"We can become engaged in a war of the 'survival of the fittest,' during which the least efficient mills and those with inadequate reserves will be forced into insolvency and liquidation.

"Or we can calmly and realistically review the operating policies and practices of our industry and determine whether, in the interest of permanent stability and continuous prosperity, we can afford to maintain the multiple-shift overtime operations to which we became accustomed during the period of abnormal demand for our goods."

Millmen should seriously consider, Mr. Swift told the convention, whether reduced operating costs resulting from the third shift are not more than offset by the depressing effect upon the price structure caused by the excess production of the third shift.

Gov. Herman Talmadge of Georgia, a guest speaker at the meeting, joined Mr. Swift in an attack on the "distress area" directive of the Office of Defense Mobilization that would channel government contracts regardless of whether or not to the lowest bidders. The Georgia chief executive stated that this directive was merely to appease certain interests, and would open the way to corruption and inefficiency. Governor Talmadge also urged Georgia textile executives to make more use of the port of Savannah in shipping their products. He declared that 90 per cent of Georgia's cotton textile exports go through the port of New York when a considerable saving could be effected by exporting from Savannah.

Continuing its policy of selecting its leaders from the young men of its membership, the Cotton Manufacturers Association of Georgia elected J. M. Cheatham of Griffin, Ga., as its new president for 1952-1953. Mr. Cheatham is president of Dundee Mills, Rushton Cotton Mills and Lowell Bleachery South, all of Griffin, and of Hartwell Mills, Hartwell and Toccoa, Ga.

The new association president was born at Easley, S. C., on May 15, 1913, and became associated with Rushton Cotton Mills in 1933 upon his graduation from Georgia Tech. He is the son of the late J. M. Cheatham, Sr., who was prominent in the textile industry, and who served as president of the Georgia association in 1935-36.

Other officers elected to serve with Mr. Cheatham included R. H. Jewell, vice-president of Crystal Springs Bleachery of Chickamauga, Ga., who was elected vice-president succeeding Mr. Cheatham, and George E. Glenn, president of Exposition Cotton Mills Co., Atlanta, Ga., who was elected treasurer succeeding Mr. Jewell. T. M. Forbes was re-elected executive vice-president and Frank Carter, secretary. Mr. Forbes has completed 25 years of service to the association, and he was cited at the annual banquet for his many contributions to the success of the organization over the years.

Seven new directors to serve with eight old directors on an enlarged board were named as follows: for three-year terms—J. H. Daughdrill of American Thread Co., Atlanta; Shannon Gamble of Standard-Coosa-Thatcher Co., Chattanooga, Tenn.; George H. Hightower of Thomaston (Ga.) Mills, Inc.; W. B. Smith of Washington Mfg. Co., Tennille, Ga.; and B. W. Whorton of Dixie Mills, Inc., LaGrange, Ga. For a two-year term: J. R. Newell of Mandeville Mills, Carrollton, Ga.; and for a one-year term: L. C. Radford, president of Monroe (Ga.) Cotton Mills.

Reporting for the technical education committee, of which he is chairman, B. W. Whorton of Dixie Mills, LaGrange, stated that a new textbook on industrial relations will be completed and ready for use in colleges and schools at the Fall term. Mr. Whorton told the millmen that completion and use of the new textbook would fill a "critical need."

The mounting costs of transportation was emphasized by R. L. Murphy, counsel for the Georgia-Alabama Textile Traffic Association. In his annual report, Mr. Murphy reviewed the increases allowed both rail and motor carriers during the past year which he declared will substantially boost textile transportation costs. Not only are charges of

Georgia Association Officials

T. M. Forbes
Executive
Vice-President

J. M. Cheatham
Newly-Elected
President

H. W. Swift
Retiring
President

the carriers becoming prohibitive, but both rail and motors are attempting to drive away less-than-carload shipments by which most textiles move, he warned the mill men.

L. R. Adams, Riegel Textile Corp., Trion, Ga., gave the report of the traffic committee of which he is chairman.

R. H. Jewell, Crystal Springs Bleachery, Chickamauga, Ga., treasurer, reported that the association had lived within its income and was ending the year with a bank balance.

L. G. Hardman, Jr., Harmony Grove Mills, Commerce, chairman of the association's agricultural committee, outlined efforts of the committee seeking to bring closer together the farmers and the cotton mills of the state. He recommended that group meetings be held with the farmers and that tours of local mills be sponsored by the Georgia Farm Bureau.

J. Rollins Jolly, American Thread Co., Atlanta, reported on public relations activities under way in textile communities. At present the committee is working on three projects (1) scholarships to be awarded by the Textile Foundation, (2) a case study of representative textile mills community to show the importance of the textile industry, (3) plans for a know-your-mill week in Georgia.

Reporting for the cotton buyers division, Frank Carter, association secretary, said that it has been noted that cotton impregnated with grease and oil is still being received at mills. He urged that tags be removed from these bales and sent the association office. Cotton fiber is still being damaged by certain ginning practices, it was reported at a recent joint meeting of Georgia and South Carolina cotton buyers groups, Mr. Carter told the mill men.

Three plants of Bibb Mfg. Co. and the Lumite Division of Chicopee Mfg. Corp., Buford, Ga., that lost not a single man-hour from accidents the past 12 months, received special awards for their outstanding safety records at the closing session of the convention.

The awards were presented by N. S. Turner, Covington Mills, on behalf of the association in the third annual Textile Safety Contest that ended March 31.

Bibb Mfg. Co. plants receiving the special no-lost-time accident awards were the Welaunee Mill, Porterdale, Ga.; the Taylor Mill, Reynolds, Ga., and Bibb's Star Plant at Macon, Ga.

Other winners in the 1951-1952 contest were as follows:

Group A (mills from one to 249 employees). First place: Hartwell Mills, Plant No. 2, Toccoa, Ga., 304,200 man-hours without a lost-time accident. Second place: Bibb Mfg. Co., Crown Mill, Macon, Ga., 253,974 man-hours without an accident.

Group B (mills from 250 to 499 employees). First place: The Jefferson Mills, Plant No. 2, Crawford, Ga., 698,866 man-hours with no time lost because of accidents. Second place: Clark Thread Co., Thomasville Plant, Thomasville, Ga., 666,384 man-hours with no time lost because of accidents.

Group C (mills from 500 to 749 employees). First place: Chicopee Mfg. Corp., Gainesville, Ga., 1,374,698 man-hours with no time lost because of accidents. Second place: M. T. Stevens Southern, division of J. P. Stevens & Co., Dublin, Ga., 1,191,522 man-hours with two accidents.

Group D (mills with 750 to 999 employees). First place: Thomaston Mills, Griffin Plant, Griffin, Ga., 1,578,688 man-hours with three accidents. Second place: The Graniteville Co., Sibley Division, Augusta, Ga., 1,597,798 man-hours with three accidents.

Group E (mills with 1,000 employees or more). First place: The John P. King Mfg. Co., Augusta, Ga., 2,407,088 man-hours with one accident. Second place: Columbus (Ga.) Mfg. Co., 2,326,084 man-hours with four accidents.

The first annual contest had 82 plants as participants, and the second annual contest had 83 plants as participants. The third annual contest had 94 plants as participants, Mr. Turner reported. He added: "For the fourth annual contest, which began on April 1 of this year, entry blanks have been received from 105 mills, and we are grateful for the interest that is being shown in this important activity of the association."

H. Gordon Kenna, Jr., of Swift Spinning Mills, Charlotte, N. C., posted a low gross 72 to capture top honors in the annual golf tournament, one of the highlights of the Georgia association's annual meeting. At the annual banquet in the Patio Royale of the Boca Raton Hotel, he was awarded the Harrison Hightower Cup which will be his for one year. The cup was presented by Jess Stribling, Universal Winding Co., Atlanta, chairman of the special entertainment committee in charge of the annual golf tournament.

Paul Gurley, Piedmont Cotton Mills, East Point, Ga., had a low net 73 to win low net honors and the annual cup for association members.

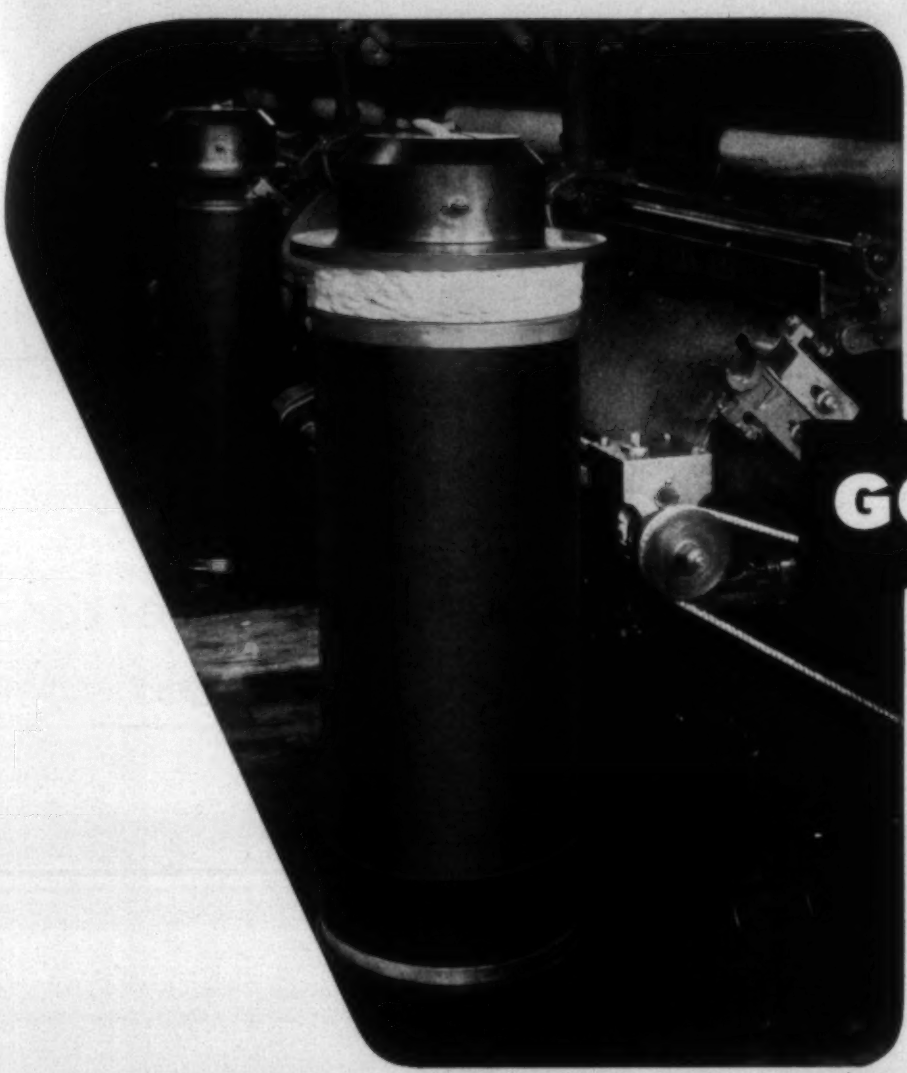
Jim Floyd, chairman of the board of Exposition Cotton Mills, Atlanta, was a close runner-up for second low gross for mill men and David Hamilton, Crown Cotton Mills, Dalton, took second low net honors.

For the suppliers Russ Gill, Southern Sizing Co., Atlanta, had a 71 for low gross. Gene Olmstead, Crompton & Knowles Loom Works, Charlotte, N. C., had a 71 for low net. Ralph Briggs, Bullard Clark Co., Atlanta, was runner-up for low net and A. S. Cookman, Jr., American Viscose Corp., Charlotte, took second low gross honors.

Convention Cruise Dates Are Changed

Dates of the cruise of the Carded Yarn Association and the Southern Combed Yarn Spinners Association to Bermuda have been postponed. The trip is being conducted in lieu of the regular-type meeting.

New dates call for leaving New York on the Ocean Monarch on Nov. 14; leave Norfolk, Va., Nov. 15; arrive in Bermuda Nov. 17; remain in Bermuda two days and depart on the afternoon of Nov. 19. The party will dock in Norfolk Nov. 21 and in New York Nov. 22. Originally, the affair had been scheduled to begin Oct. 25.



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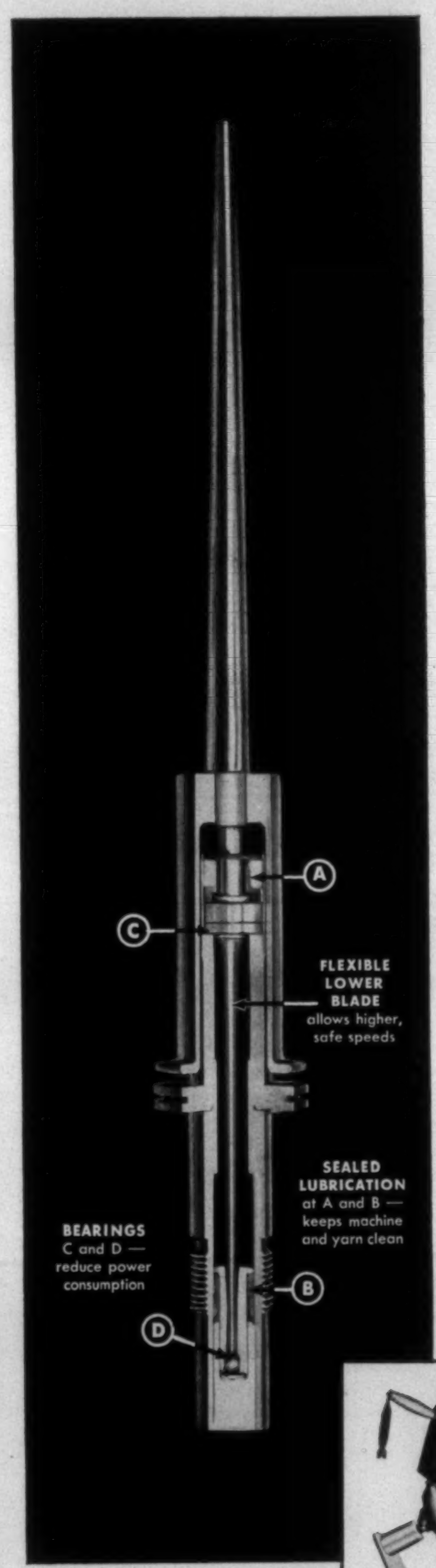
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Synthetic Fiber Yarn Manufacturing Discussed By South Carolina S.T.A.

THE manufacture of synthetic fiber yarns was the subject of a thoroughgoing discussion which took place April 12 at Spartanburg, S. C., during the Spring meeting of the South Carolina Division of the Southern Textile Association. Panel members who were principals in the discussion were Chairman James A. Chapman, Jr., of the South Carolina S.T.A. Division, who is superintendent of Riverdale Mills at Enoree, S. C.; Joe C. Cobb, general superintendent of Pacific Mills at Rhodhiss, N. C.; Robert T. Stutts, president and treasurer of Carolinian Mills at High Shoals, N. C.; and Carl Brandt, of Whitin Machine Works, Whitinsville, Mass. A stenographic report of the discussion follows:

Chairman Chapman: Our discussion on the manufacture of synthetic fiber yarns will have particular reference to changing from cotton to spun synthetics. Since synthetic fiber yarns are new to many of the mills in South Carolina, I am going to ask Mr. Brandt to open our discussion with some general remarks on synthetic fibers.

Mr. Brandt: Synthetics might be divided or classified first by composition. In other words, there is a class of fibers that start with cellulose. That is the early type; and in that group you will find viscose, acetate, and cuprammonium. They are the three main fibers that start with cellulose as a base. Next come the true synthetics, which are fibers built up right from the ground, from an inorganic material combined with an organic material. In that class are Orlon, nylon, Dacron, Dynel and other fibers. They have entirely different properties, and they handle quite differently in the spinning and in the final yarn. In them you have a material quite different from that early type of synthetic which had a cellulose base.

The classification can be carried further. In synthetics you had at first 1½-inch staple and 1½-denier. I imagine the synthetic fiber was cut in that staple and made in that denier in an effort to approach the condition you had in the cotton fiber. To get the stuff on the market the producer had to put it in such form that you cotton mill men could handle it on the machinery in your plants. As time went on these pioneers wanted a little wider field in the construction of fabrics, and they put on pressure to get longer lengths. Then, after more time, it was found that coarser fibers were very desirable in giving the fabric a better hand and a crisper feeling. So, over a period of six or eight years, the trend was toward a fiber up to three inches in length and running in denier to three, 3½, and even to 4½.

As time went on the tendency was to go to even longer fibers. Some of the spinners now want fibers at least four inches long and in coarser deniers, some even up to 11-denier. By using longer and coarser fibers the manufacturers find it possible to produce fabrics much like worsted, by using up to 4½-denier. If you want more crispness, still more resistance to creasing and resistance to wrinkling, you go to even coarser deniers. The entire reasoning back of this whole thing was to produce fibers that had qualities in the worsted field. In other words, a good deal of Summer suiting is now made of synthetics, and in order to get appearance and wearability it was necessary to go to these longer lengths.

That is the trend at the moment. It might now be well to take a little time to go over the matter of handling. The shorter lengths you can handle on your cotton machinery; for the longer lengths you need to modify that machinery. You need longer roll stands, so that you can spread your rolls, and larger rolls—you need rolls of such dimensions that you can increase the weight. As we go on with these newer systems, where more control is put in the unit of the machine itself, you have a second reason for applying more weight to the top roll. So a separate type of machine has been developed to handle this longer, coarser fiber. Since it approaches wool in many of its characteristics we find that the worsted type of machinery, that we have been building over a period of years, fits in very nicely. It is true that we have made modifications in its set-up and in its operation, but we have taken a number of features from the old type of worsted machinery. For instance, we have the larger roll. As a result we have today what our company calls an American system, and on that we can handle these newer types of fibers that run into the long lengths and coarser deniers suitable for the worsted-type fabrics.

It is true that as you get into these longer lengths some of your problems become quite difficult. One of them is the preparation of the lap. At the present moment it is difficult to make a good lap on a picker with a staple of over 3½ inches.

In place of drawing, on these longer lengths we substitute a process similar to the old process which was used in worsted, where you have pin control, which controls the material as it is carried forward; and then that is pulled out.

When it comes to roving, you can overcome the difficulty there by using longer roll stands and larger rolls. That prevents lapping and licking of the fiber and makes the ordinary operation of the machine much easier; and, at the same time, you can add the pressure that is necessary to do proper drafting. The same thing applies to spinning. Our machines are heavier in construction; we use a two-inch bottom roll in spinning, just as we do in roving; and then we apply the improved method of draft control that we get by the use of aprons.

That covers roughly the trend at the moment and some of the problems that we have overcome. There are still other problems; and maybe, as time goes on, they will surely be solved. But at the present time fabrics are being constructed in the field of synthetics that offer good, stiff competition with these higher-quality worsted fabrics with which we are all familiar. The reason that has led to the adoption of this new type of machinery is the development of machinery to fit the product that you plan to make and the stock that you are running. I still think we are in the molding stage; I think there will be a lot of progress made with the newer types of fibers, particularly those of the Dacron and Orlon type. They fit in very nicely with combinations of woolens and worsteds. They have certain virtues that the woolen fiber itself does not have; and, when blended in the proper proportion, I think it is possible to construct fabrics that are better than we make of the natural fiber. It will be a long time, I think, before synthetics replace some of the natural fibers; but there is a definite field for them, and when properly used they will prepare and produce materials that are of superior quality. I think as time goes on we shall find more and more synthetics in use, both as self fibers in 100 per cent use and also in combination with our natural fibers.

Chairman Chapman: We have a few questions here to present to the panel. From the first question it seems that someone is having a problem with his picking. He says that he would like to have the panel discuss the "picking and carding of 100 per cent Acrilan, Dacron and Orlon."

Mr. Brandt: Up to this time I think in picking Orlon and Dacron the lap has been kept on the short side. It is impossible to make a full-length lap on fiber of this type. I think the mills on this material have been able to make about a third of a normal lap. The fiber has peculiar characteristics; you can not compress it; that is, if you do compress it it will spring back. You can make an even lap, one that is satisfactory as to evenness and one that will unwind on your card, without much trouble.

Question: What variation in card sliver can you expect there with the Bramwell feed?

Mr. Brandt: We found that the variation would run in the neighborhood of from 15 to 18 per cent where you use the lap tester and trace your reading on your high and low point in each yard. Of course, the average card sliver might be in the neighborhood of 12 per cent. So you might say you have 50 per cent more variation where you have the Bramwell feed.

Chairman Chapman: I had occasion to discuss this subject with someone the other day, and he said they were using metallic card clothing; use a fancy on the cylinder, and use coarse wire. The gentleman that sent in this card also wants to know about carding these materials, and he seems also to have difficulty in tinting. He says the stock sticks to everything and loads the cards. It is hard to get the fibers off the card.

Mr. Brandt: Wherever tinting is done it is well to allow time for the tinting to get off the lap. In other words, if you have moist spots in the lap it is hard to get it off. If you apply the tint and then put the lap aside and allow it to condition properly I do not think you will have much trouble. There is a trend toward metallic-clothed cards for synthetics, especially with coarser deniers—three-denier and coarser.

Mr. Stutts: Is there the same danger as with acetate and viscose? Do you have more trouble with it?

Mr. Brandt: I do not think so. Any of them will give you trouble, but I do not think it will give you much trouble.

Mr. Pittendreigh: On nylon and Dacron you have to be careful about tints, because there is a special group of tints that has to be used. I know generally they ask you not to put a tint on it, but of course that is impossible.

Mr. Brandt: That is one thing you will have to watch because sometimes you have materials in your lap that will really be dyed by the tints. When some of the mills started putting wool in the rayon lap they put on the regular tint, and it looked beautiful, but when they treid to wash it out they found it stayed on the wool.

Chairman Chapman: Here is a question: "What twist multiple will give the highest break factor on spun rayon yarns?"

A member: I think the maximum strength would be reached with a twist multiple of 3.65. You might raise that just a little bit and add a little more twist. When you do your elongation suffers, so you really do not gain anything. On 100 per cent viscose you can go a little further. I am still talking about two-inch length.

Mr. Pittendreigh: I think the best way for anybody to answer that question is to take his own blend, put it on a spinning frame, experiment with twist, and arrive at his own answer. He can begin with what the manufacturer says is the right figure and experiment from that.

Chairman Chapman: To me as a cotton mill man his 3.65 twist multiple brings up this question: Do you normally run a lower twist multiple?

Mr. Brandt: Yes, normally much lower. When you change over from cotton you have to slow down your spindle speeds, because you are running a much lower twist multiple. You have to slow down.

Mr. Cobb: We get our maximum break at 3.25 twist multiple on a blend of acetate and viscose.

Mr. Stutts: I might say one thing for those who have not had any experience on acetate. Once you start on blends you cannot experiment too much with your twist, because if you begin to play with it you will have some cloth coming back.

Chairman Chapman: Here is a question on which I think we can probably get some pro and con discussion. The question is: "When spinning synthetics is it better to have specialized cleaners or to let the spinners do all the cleaning?"

Mr. Stutts: From the information I have gathered from the men I have talked with, and from the experience I have had, we let the spinners do most of the cleaning. We are not running any spun filaments now, but we have had the experience that many of the cleaners will blow the waste and slubs into the yarn. I believe you might come out better with letting the spinners do the cleaning.

Mr. Cobb: From our standpoint we have found it better to let the spinners do all the cleaning except roll picking. We find we have fewer gouts and so forth in that way.

Mr. Pittendreigh: I am in favor of specialized cleaning, myself, but you have to do what you find better in your individual plant. If you find that you cannot use specialized cleaners, then you might break up the job and use the spinners for general cleaning and use roll pickers, as Mr. Cobb said.

Chairman Chapman: I have another card here with a question, or it is really three questions. It reads: "What is the best method for processing long-staple synthetics? Should they be processed on the worsted system or the cotton system? Should combing be used with the worsted system, or can equally good results be obtained without combing"

Mr. Cobb: I might answer from this angle. We probably run longer staple at the moment than anyone else. I would say from our experience that the cotton system is fine. It depends on how long a staple he is talking about. You can still run 4½-inch on cotton machinery. It depends on the drafting on the slubber and in spinning. You can run 4½-inch staple successfully. I do not think you need the worsted system to run long-staple synthetics. You can run them on the cotton system. I do not think it is necessary to have the comber unless, particularly on finer yarns—60s, 80s, 100s, or something like that, you might want to comb the stock to give a little better-running work at the spinning frame and to clean the yarn up a little. But I think you can still do it on the cotton system by adding another process of roving.

Chairman Chapman: The next question is: "How does the cost per pound compare between the 'cotton system' and the 'worsted system'?"

Mr. Cobb: That question I am not prepared to answer because I do not know what the cost of the worsted system is, but I would say that naturally the cotton system would be less expensive than the worsted system. He wants to know how the cost per pound compares. While I have never run the worsted system, I would come to the conclusion that the cotton system would be cheaper because there are fewer processes.

Mr. Brandt: It costs approximately half again as much to make

Carl Brandt *(standing)* addresses the South Carolina Division of the Southern Textile Association. Others in the picture *(from left to right)* are G. M. Anderson of Penick & Ford, Ltd., who addressed the group on slashing of synthetic fiber yarns; W. M. Pittendreigh, general superintendent of Riegel Textile Corp. at Ware Shoals, S. C.; Joe C. Cobb, general superintendent of Pacific Mills at Rhodhiss, N. C.; Robert T. Stutts, president and treasurer of Carolinian Mills, Inc., High Shoals, N. C.; and James A. Chapman, Jr., superintendent of Riverdale Mills at Enoree, S. C., and chairman of the S.T.A. division. Messrs. Pittendreigh, Cobb, Stutts and Chapman, along with Mr. Brandt, participated in a panel discussion on the spinning of synthetic fiber yarns.

FLOW STEEL RECONDITIONED TOP ROLLS
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yarn on the worsted system as on the cotton system. For instance, if it costs you 15 cents a pound to make yarn on the cotton system it would cost you about 25 cents a pound on the worsted system.

Chairman Chapman: The next question is: "Do you think it necessary to comb all suitings for high quality?"

Mr. Brandt: I think there is a definite necessity for combing for quality fabrics. In the woolen field, where you get $4.50 to $5 a yard for the material, nothing is too good. I think in quality work it might be necessary to comb.

Chairman Chapman: Here is the last question on that card, and I should like to get an answer to it myself. "Does anyone know how to improve the Pacific converter?"

Mr. Cobb: It is not perfect, by any means. I should like to say, though, that by the use of the Pacific converter for the last five years we have not had a filling band. That is not due just to the converter alone, but the converter helps. After the converter we use the same processes as the rest of you do. There are some improvements being made on the converter as time goes along; and there is one improvement that, if it proves to be practical, will help it quite a bit. One of the troubles with the converter has been that our producers will not give us the total denier, and the consequence is that when the material goes under the cutter roll the roll does not cut it; it compresses it. It has a tendency to bond those fibers, and you have to break them up in subsequent processes. It is a good machine; I will say that. With 4½-inch fiber there is a problem in making the picker lap; and with the Pacific converter you do not have that problem.

Mr. Pittendreigh: I should like to say a word of caution for those going into rayon. I think the thing to be very cautious about is picking and blending. Be sure that you do not get away from established practices that have proven to be satisfactory. These new-fangled blending systems have just recently come on the market, and some of us have had experience for an awfully long time in blending acetates and rayons. You did not have to worry too much about a straight acetate and viscose mix, but when you start blending acetate and Orlon or viscose and this other type you still have trouble. Men who have grown up in the cotton industry and are being asked to change over to synthetics, should not be asked to have too many headaches to begin with—not that rayon ever gives anyone a headache. So I think those processes are the ones to watch in the beginning. The way I feel about it is that when you look at picking and the cost of picking and the cost of bands coming back on some dyed goods that you ship out as firsts, and some nights that you might not sleep because of thinking about things like that, you might call two-process picking sleep insurance. I think the most dangerous part of going into rayon is being sure you have the right preparatory department, before it hits the card. I think most rayon technicians will agree that once it passes the picker room and gets up to carding you are not going to do too much blending on the regular cotton mill machinery. So you have to blend before it gets to the card.

Chairman Chapman: What type of beater do you use on the picker, Mr. Pittendreigh?

Mr. Pittendreigh: We use the Kirschner because we feel that we get a better carding action without much damage to the fiber. In picking and opening it has been a generally accepted practice not to have too many beaters. Of course, some of us feel that after the tow is made and is broken up into individual fibers, so to speak, by the rayon producer he has done a lot of damage; and we do not think we can do very much more if we add a couple more beaters in there. I have found that four beaters in an opening and picking line will not hurt you. We do use Kirschner beaters on our pickers because we think we get a better combing action with less damage to the fiber than with the Buckley beater, or with the blade beater, especially. I do not think I have ever used a blade beater on rayon.

Question: Have you ever used a fringe roll?

Mr. Pittendreigh: We have experimented with them but have yet to be successful in getting them to do anything for us.

Chairman Chapman: How about the speed of the beater?

Mr. Pittendreigh: It should be as slow as possible, and the licker-in speed has to be cut considerably. Of course, you can card from 14½ to 18½ pounds an hour.

Mr. Brandt: The blade beater is better for cleaning, and the Kirschner beater is better for opening the stock. You do not have a cleaning problem; you have an opening problem. The opening is really a problem. Another thing; once it hits the card your blending is practically done. In other words, you do not blend after you leave the card. You can draw; you can double it and do everything else. I think in these acetate and viscose and nylon-type blends it is very important to pass it through the card that way, because you do not figure to blend after it leaves the card.

As to the question of rewound filling, the manufacturer of woolens spends a considerable time in inspecting and will pull out every little bunch and reweave it. If you are going to produce fabric to compete with worsted you cannot let knots and bunches and slubs go into the fabric, and the place to find them is in rewinding the filling. So I think it is a paying proposition to rewind filling.

Question: In running 3½-inch staple or four-inch staple it has been the practice of some mills to use metallic clothing on the cards. In doing this carding on the cotton system would you recommend a coarser wire, say 70 or 80 or 90 wire rather than 100?

Mr. Brandt: Normally on three-denier or coarser we recommend 90 wire.

Mr. Pittendreigh: You do not mean that for three-denier, do you? You mean above three-denier?

Mr. Brandt: Yes. From three-denier up.

Mr. Pittendreigh: You will get a better fiber blend, I believe, with the Kirschner beater than with any other type of beater.

Mr. Cobb: You can card 4½-inch staple and do a good job with a 50-50 blend of acetate and viscose with a flat-top card with flexible wire. It is a matter of making changes on the cards. Some cards are different; and you just have to change your card to get the proper conditions.

A member: That is 90 to 100.

Mr. Cobb: Yes, and 110. We do have some 70 wire on the flats. With the stronger fibers and longer lengths that is where you run into trouble with the flexible wire.

Spun Dyed FIBRO Is On The Way

By HAROLD ASHTON, Courtaulds, Ltd., Rochdale, England

THE rapidly increasing variety of man-made fibers now becoming available, in the form of regenerated and synthetic staples and yarns, particularly in the United States, provides an absorbing study for the textile technologist, with an ever widening range of problems and possibilities for all those concerned with the production and sale of textile materials. As the chemists and chemical engineers pursue their techniques we begin to see the possibilities of engineering fiber properties on a basis of fitness for purpose and specified performance. We have witnessed, in the course of a single generation, revolutionary developments in the mechanical and technical methods of processing as machinery builders, spinners, weavers, dyers and finishers have risen to the challenge of the fiber producers to take advantage of the freedom of choice of fiber characters and performances ranging across cellulose, protein and synthetic fiber materials. We can also see that these developments will be progressive as accumulating experience teaches us

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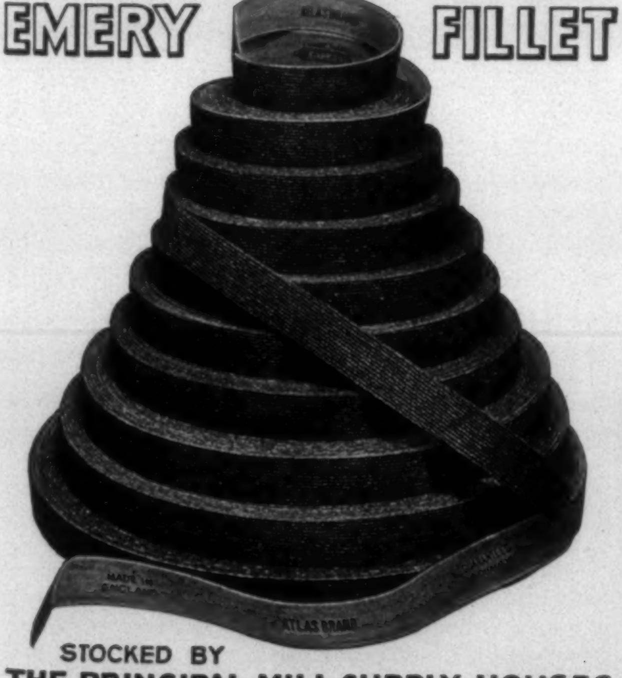

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how to increase the processing efficiency of existing materials and to cope with those which will surely follow.

Remarkable as are the properties of the synthetic fibers developed during the last 15 years it is clear that on economic and service grounds alone the products of the viscose and cellulose acetate processes will continue for a long time yet to be the backbone of the man-made industries. We have also seen that in many ways the coming of the synthetics will extend the uses of viscose and acetate staple fibers as blending techniques develop and expand. We should therefore be in no danger of assuming that we have exhausted the possibilities of the viscose and cellulose acetate processes or that these materials are ever likely to be at a standstill. Far from it. I wish to direct your attention to what I believe will be the next major advance in the range of utilization of these materials and from here on I shall confine my remarks to viscose rayon staple. "Fibro" as you well know is the registered trademark of Courtaulds, Ltd., for its production of viscose rayon staples for which it has built up in the past generation in England a productive capacity for some 3,500,000 pounds per week at 180 million pounds per annum. As you also know Courtaulds has influenced the production of this material in various parts of the world and is now engaged in establishing a production unit at Mobile, Ala.

The art of coloring in textiles has come a long way but has been with us since the beginning of recorded history and before. It has taken many forms such as raw stock, process, yarn, and fabric dyeing. In this age of specialization we can in our lighter moments amuse ourselves by debating the relative contributions to our industrial effort of the colorist and other trade specialists, but usually without resolving the issue. Suffice it to say coloring is a very important part of textile production.

As the standard varieties of Fibro got underway in the middle '30s Courtaulds began to explore the possibilities of coloring viscose rayon staple by including color pigments in the liquid viscose so that when the fiber is made it is colored to the core. Many difficulties, as would be expected, were encountered, associated with the supply, choice, and treatment of pigments, differential filtration, retention of solidity of shade matchings, and last but by no means least the choice of a restricted shade, staple and denier range with the maximum possibilities. Many things which are possible are not always practicable and this applies with particular force to the commercial production of colored staples. The advantages of success were, however, obvious in terms of economic coloring in relation to fastness of shade as compared with conventional methods of dyeing. Slowly difficulties were overcome so that for many years now commercial production has been underway with spinners and fabric technicians using these colored fibers in their production. The late war and its aftermath retarded developments and utilization. Shortage of and heavy pressure on existing capacity for standard staples, yarns, and cloths quite naturally sidetracked the full development of spun dyed Fibro, production involving as it does changed habits, thoughts and practices, particularly in spinning mills.

Apart from the use of fibers in non-woven fabrics, of which we are certain to hear much more in the future, staple fibers must be spun into yarns before they can be used in fabrics. The advent of spun dyed Fibro with its blending possibilities adds only one more string to the many now converging on the spinners who face an already complex future of blending activity. Changes in process and methods are already here, as we can see by viewing the intense activity in the mechanical blending field and other changes will come. This does not mean that spinners must perforce break down their mass production techniques to engage in their scope spun dyed Fibro, but merely that they have to increase their technical grip on processing methods and strengthen the organizational control of production and marketing. Change is a law of life, adaptation to changing circumstances the price of survival and spinners can be no exception. Spun dyed Fibro at least offers a means to adding to the gaiety of mill life. The following staples and deniers are now available:

1.5-Denier, $1\frac{7}{16}$-in. Staple
Colors

12	Light blue
14	Red
15	Medium blue
16	Dark blue
17	Apple green
18	Malachite green
19	Sulphur yellow
20	Indian yellow
21	Pink
51	Khaki
52	Tan
55	Brown

3-Denier, 2-in. Staple
Colors

41	Red
43	Indian yellow
44	Sulphur yellow
45	Apple green
46	Malachite green
47	Light blue
48	Medium blue
49	Dark blue
61	Khaki
62	Tan
65	Brown

4.5-Denier, 6-in. Staple
Colors

31	Red
32	Indian yellow
33	Sulphur yellow
34	Light blue
35	Medium blue
36	Dark blue
37	Apple green
38	Malachite green
39	Pink
70	Brown
71	Khaki
72	Tan
75	Brown

Black

1.5-denier, $1\frac{7}{16}$-in. staple
3-denier, 2-in. staple
3-denier, $2\frac{1}{2}$-in. staple
4.5-denier, 2-in. staple
4.5-denier, 4-in. staple
4.5-denier, 6-in. staple

Spinning of Spun Dyed Fibro

From the staples and deniers available it will be seen that spinners using cotton, modified cotton, worsted, woolen and flax type machinery are already catered for. The first approach to colored work is usually by way of spinning solid colors. In this way spinners, after taking the usual precautions to insure against contamination, precautions which already apply to the wide variety of cross dyeing blends now in production quickly realize the processing advantages of spun dyed Fibro as compared with raw stock dyed materials. As the colored pigments are embodied inside the fiber the drafting qualities of the stock remain relatively unimpaired and therefore spin with equal ease and call for little change in the techniques of spinning standard viscose staple yarns. There is, however, a slight reduction in yarn strength as compared with plain materials and a lowering of the yarn count spinning limit. Even so the 40/50 count range for 1.5-denier $1\frac{7}{16}$-inch staple, 36/40 for 4.5-denier six-inch staple and 20/24 skein range for three-denier two-inch staple on cotton, worsted and woolen spinning systems, respectively, are within reach.

For some years now my colleagues at Arrow and Westcroft Mills have been working out the blending possibilities

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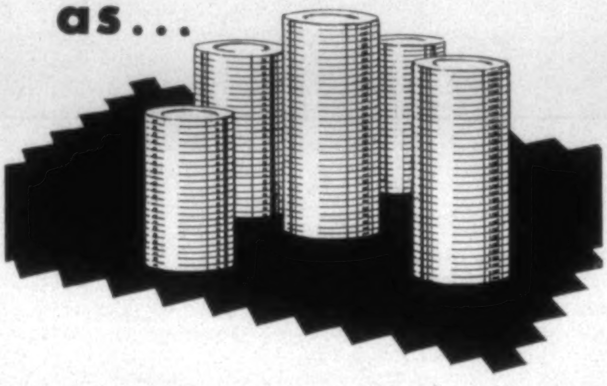

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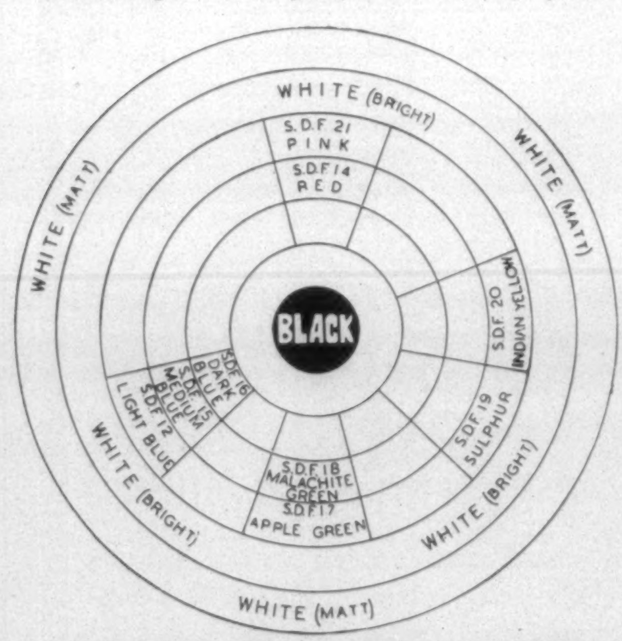
of these materials. We have endeavored to set out the possibility of extending the range of apparently solid shades by blending, in various percentages, color with white and color with color to produce a systematic shade range of colors. Let there be no pretense that this kind of work is new or in any sense original. Worsted and woolen spinners for many generations have done this as a matter of routine production control, but they have usually kept the formulas for such work in their color matching departments. The filament denier or particle size naturally affects the range of apparently solid shades, but when working with $1\frac{1}{2}$-denier $1\frac{7}{16}$-inch staple, the range can be quite wide as may be seen from an examination of the color blend handbooks we have prepared. Copies of the books have been made available to Lustre Fibres, Inc., New York. It will here be useful to quote directly:

> In order to assist users of spun dyed Fibro in the selection of colors which will produce a fair degree of solidity, a color blending circle showing the standard spun dyed colors has been drawn up and is illustrated in the diagram.
>
> In order to obtain maximum solidity of shade, the best results will be obtained by choosing pairs of standard colors which are placed as near as possible to each other circumferentially, and equidistant from the center of this circle. For example, if a solid color of orange is required, the Indian yellow would be the first color to select. A certain percentage of red must be added and here it is necessary to choose between the red and the pink. Obviously the pink will be chosen in this case as it is the same distance from the center of the circle as the Indian yellow. An excellent range of orange hues can easily be obtained by combining these two colors in various percentages.
>
> If colors placed diametrically opposite to each other in the circle are used, the resultant blend will usually be an unpleasant color, as indeed it would be if these colors were combined in pigment. Such blends may, however, be useful under certain circumstances for special effects. In a similar way, though, of comparatively secondary importance, colors situated at considerably different distances from the center of the circle will not readily merge with each other and produce solid colors. Solid effects cannot be expected from blends of the darker colors and white. When light colors are required, white Fibro, preferably bright, may be added to colors situated as near as possible to the outside of the circle.
>
> The following is a list of spun-dyed colors which will produce useful solid or near solid hues, when blended together. The result to be expected when the given standard colors are blended in various proportions is also indicated:



Color blending circle for Courtaulds' spun dyed Fibro.

STANDARD SHADES	GRADUATED RANGE OF
Red SD.14—Pink SD.21	Reds
Pink SD.21—White (Bright)	Pinks
Pink SD.21—Indian Yellow SD.20	Oranges
Indian Yellow SD.20—White (Bright)	Yellows
Indian Yellow SD.20—Sulphur SD.19	Yellows
Sulphur SD.19—White	Yellows
Sulphur SD.19—Apple Green SD.17	Lt. Yellow Greens
Malachite Green—Apple Green—Sulphur	Yellow-Greens
White (Bright)—Apple Green	Greens Lt. Greens
Apple Green—Malachite Green SD.18	Greens
Apple Green—Light Blue—White (Bright)	Lt. Blue—Greens
Apple Green—Light Blue SD.12	Lt. Blue—Greens
Malachite Green—Med. Blue SD.15	Blue—Greens
Light Blue SD.12—White (Bright)	Lt. Blues
Light Blue—Medium Blue SD.15	Lt. Blues
Medium Blue—Dark Blue SD. 16	Dk.Blues
Dark Blue—Black	Dk.Blues

> Colored fiber blending is often adopted, not with the object of achieving solidity with colors which merge easily with each other, but rather to produce novel and unusual effects by the exploitation of colors which tend to resist each other and retain their individuality, thereby producing the characteristic mingled effects, heather mixtures, etc.
>
> The color blending circle will be found useful in producing effect yarns, by using the opposite rules from those given for solid colors, i.e., use colors which are fairly widely separated both radially and circumferentially for maximum contrast effects.

Spun Dyed Fibro Color Fastness

In addition to the advantages deriving from none-interference with spinning properties, which in turn facilitates blending operations, spun dyed Fibro offers important economic advantages by providing, in general, a much higher color fastness ratio against relative cost as compared with conventional methods of dyeing. In terms of light and washing fastness as measured by standard tests, spun dyed Fibro yields very good results. It would be too much to expect at this stage of development that all these pigment colors should be fast to everything but except in relation to cross dyeing of some pigments with vat dyestuffs and the reaction of some pigments to solvents used in some methods of dry cleaning, the range of pigment colors as a whole is very fast. Exhaustive tests are being undertaken to correlate performance of the separate shades against accepted methods of testing and efforts to improve performance, where necessary, are continuous.

It should be made clear that spun dyed Fibro colored staples being themselves viscose fibers retain their affinity for direct dyestuffs. Remember this is necessary whenever cross or over-dyeing is undertaken. On the other hand this affinity for direct dyestuffs makes possible some of the most important results of using spun dyed Fibro in blend or together with wool, cellulose acetate and many of the synthetic fibers. The cross dyeing performance of spun dyed Fibro against wool colors reveals the many advantages of being able to dye basic cloths to a variety of shades, when color requirements are known.

Mr. Ashton's paper was presented before the May 7 meeting of the American Association of Textile Technologists in New York City.

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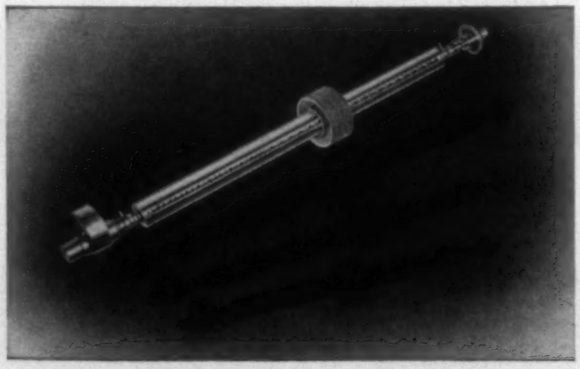

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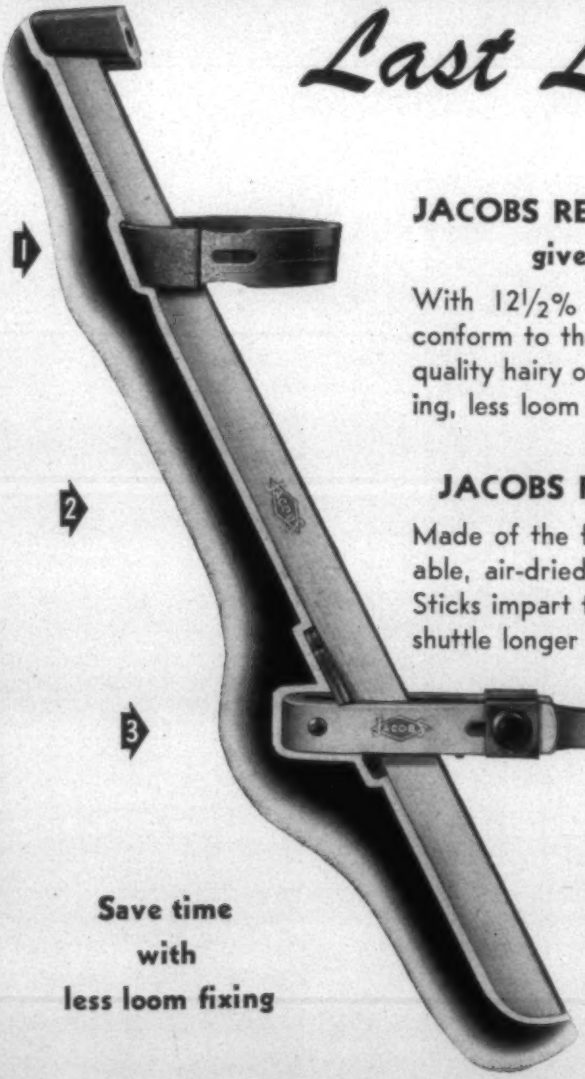

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Problems In Slashing Synthetic Fiber Yarns

By G. M. ANDERSON, Penick & Ford, Ltd., Atlanta, Ga.

WITH the advent of man-made or synthetic fibers the textile designer suddenly found himself in a position to create fabrics limited only by his imagination with respect to the multitude of possible blends of natural and synthetic staple fibers. It has been the lot of the textile manufacturer to develop the engineering "know-how" to translate the designer's dreams into reality by producing quality fabrics representing the thousands of possible combinations of bright, semi-dull and dull synthetic fibers of varying denier and staple length with each other as well as with the natural fibers. In order to meet the textile industry's sizing requirements for production of fabrics from the synthetic fiber yarns, manufacturers of sizing materials were compelled to develop entirely new concepts of specifications for sizings to produce the weaving protection necessary for high weaving efficiency, easy removal from the woven fabrics, and most important of all to yield a first quality fabric.

In achieving the goal of a well-sized synthetic warp two problems exist which are (1) the choice of the proper starch base materials and sizing adjuncts to supply abrasion resistance requirements of the specific weave and to be readily removable from the woven fabrics, (2) proper physical handling and application of the sizing materials in the slasher room to provide the optimum amount and distribution of size on the yarn.

Until recently the textile manufacturer was limited to the choice of starch base sizing materials for spun synthetic fibers to products conforming to various viscosities of a general type known as low cold water soluble British gums which are manufactured by a high temperature conversion process resulting in the characteristic finely powdered light tan or cream product. The British type gums have proven themselves in the industry on viscose and viscose acetate blends by providing good weaving protection and fairly easy removal by enzyme treatment from the finished fabric.

The starch chemist was not entirely satisfied with the realtive congealing, desizing and viscosity stability properties of the British type gums as being the ultimate in filling the sizing requirements of spun synthetic fibers and started research work towards building certain desirable properties into starch base gums to more adequately meet the requirements of the industry. This research work has been culminated by the development of an entirely new series of starch base products for sizing with the chemical description of hydroxy alkyl starch ether gums. This series of products has the properties of low congealing, stable viscosity, high film strength, strong adhesion and much improved removal in desizing with upwards of 95 per cent being removed without benefit of enzyme treatment by a good scouring in the finishing plant. Enzymes attack the starch ether gums much more readily than usual starch base products which, of course, greatly facilitates complete removal of the sizing when the fabric is subjected to the normal enzyme treatment in the routine finishing plant processes for spun synthetic fiber fabrics.

In order to fairly present this paper without taking undue advantage of commercializing the occasion, attention is called to a product representing the contribution of another development group which it is understood has been described chemically as a starch ester gum containing carboxylic and sulfonic groups. General information from the textile industry indicates that this product also fills to a varying degree some of the previously described desirable characteristics for sizing spun synthetics; however, the chemical composition of the hydroxy alkyl starch ether gums and the starch ester gums containing carboxylic and sulfonic groupings are obviously widely separated.

Minimum Quantity of Size Desirable

Experience has indicated that the minimum amount of size that provides adequate weaving protection for a given warp will yield the best quality synthetic fiber fabric. To secure the minimum amount of size for the weaving requirements of the specific weave it is necessary to balance the viscosity characteristics with the concentration of the starch base materials to supply a size box viscosity resulting in the proper deposition of the size in and on the yarn under the individual mill slashing conditions. Under normal conditions light sizings provide more efficient weaving protection when applied from viscous sizing materials in comparison to less viscous products. For example, in the range of five to eight per cent added weight on synthetic fiber yarn the viscous sizings provide greater abrasion resistance than five to eight per cent added weight from thinner bodied sizings. For warps requiring added weights in the range eight to 14 per cent or higher it is mandatory to use the thinner boiled products in order to achieve a working size box viscosity with the higher concentrations of starch base materials which are required to produce the added weight necessary for adequate weaving protection on higher count constructions. Should the higher added weights be applied from extremely viscous sizings, excessive coating of the yarn is sure to result accompanied with breakouts at the front of the slasher, abnormal shedding of fiber both at the slasher and loom, increased loom stops due to knots and gouts breaking out and increased prominence of set marks. In short, an optimum size box viscosity exists for each weaving requirement to utilize the maximum efficiency from the various percentages of added weight on the sized warps.

Spun Viscose and Viscose-Blend Warps

Since the sizing of viscose and viscose blends comprises the greatest percentage of textile yardage currently produced by the industry, the following remarks will be confined to the problems of slashing viscose and viscose blends on which it is assumed the sizing formulation approximates a satisfactory viscosity-concentration relationship.

Hard Size—In the sizing of synthetic fibers hard size can be classified according to the two general sources of (1) roll marks and (2) individual hard size spots.

Roll marks occur at a point on the warp yarn at which the squeeze rolls rest during the period that a slasher is stopped for leasing or doffing of the warp. The degree of the hard size roll mark varies with the time the slasher is stopped, congealing properties, concentration and viscosity of the starch base product.

From a mechanical standpoint an educational program of speeding up the operators to the point that the time the slasher stands is reduced to a minimum through improving the efficiency of running loose strings, cutting laps, doffing and other operations will materially reduce the intensity of the roll marks. Slasher operators that have become creep speed conscious, by punching the creep speed button to move the yarn a short distance as often as possible, can materially reduce roll marks.

In some instances running too low a level of size in the size box will contribute to the formation of roll marks. Personal experience has shown that for most sizing conditions a size level midway on the copper or stainless steel roll provides best results. Too viscous a size mix also increases the tendency towards hard size roll marks with the obvious solution to use a thinner bodied starch base product.

Sizing containing starch base products that congeal easily greatly increases the number and the degree of roll marks. Prior to recent times no relief was possible from the innate congealing properties of the starch base product used in spun synthetic sizings; however, the development of the new starches such as the hydroxy alkyl starch ether gums has made available products for sizing application that physically will not congeal into a hard gel structure even when the cooked product is cooled to room temperature. Obviously a product of this type when properly handled virtually eliminates the formation of roll marks.

Individual hard size spots other than roll marks on the yarn usually result from one or more causes such as insufficient mixing of the sizing materials in the cooking kettle prior to turning on the steam; poor housekeeping in the cooking kettles, storage kettles, and size boxes; too low a temperature in storage kettles and size boxes; too high size level and excessive variation in size level; too vigorous boiling of size in the size box due to faulty size box coils; too high steam pressure to size box coils; failure to keep the size level above the closed steam coils in the storage kettle; secondary effect of foaming; dead spots or unheated portions of size in the size box; choice of a starch base sizing material that possesses the inherent adverse physical property of congealing. The same proportions that make the newly-developed starch ether gums so desirable in eliminating roll marks are effective in reducing the individual hard size spots resulting from the outlined causes of hard size from mechanical application.

Soft Warps—The terminology "soft warps" covers a multitude of specific problems stemming from the basic fact that the warps have insufficient weaving protection for the construction under consideration. Experience has indicated that an engineering approach to correction of soft warps is to initially determine the amount of actual added weight or sizing on the yarn to ascertain whether or not the warp contains sufficient size to provide sufficient abrasion resistance for the specific weave.

If the majority of the warps are soft and added weights are low, the obvious corrective measure from the starch base material consideration is to increase the concentration in the size box. In the event that the viscosity of the size in the size box is already too heavy the starch base product must be changed to a thinner bodied material in order to allow a more concentrated mix to be applied and yet retain a workable viscosity.

Should the proper amount of added weight be secured on the yarn and the warps are still soft, either the softener being employed in the mix is at fault or the mix requires an additional adjunct to facilitate adhesion to the fiber. Mill usage has shown that non-emulsified and non-sulfonated softeners that have sufficiently high melting points to provide a solid body at room temperatures such as typified by the high melting point waxes are the most practicable softeners for extensive usage in the sizing of synthetic fibers. Sulfonated and emulsified softeners are very efficient softeners, in fact, too much so as they decrease the abrasion resistance of the starch base sizes to a dangerous point. In most viscose and viscose blends approximately five per cent softener of the high melting point type appears to be optimum for addition to the British type gums while three to five per cent of the same type softener appears to yield best results with the new starch ether gums. As we all know, if too much softener is used, soft warps will result and if too little is added to the formulation, the sized warps will be harsh.

Soft viscose-acetate blend warps are frequently improved by the addition to the British type gums of protein bearing materials containing gelatin or modifications thereof; however, the starch ether gums appear to possess greater adhesion properties to acetate than the British type gums and it is seldom necessary to add gelatin bearing products as adjuncts to the starch ether gums.

Frequently, difficult high count weaves requiring a maximum of weaving protection will be soft even though the over-all added weight applied is adequate from a properly balanced formulation due to a crowded condition causing the pilation of the individual warp ends preventing adequate sizing of the entire body of the yarn. This condition is easily remedied by the installation of double size boxes allowing the splitting of the warp in half for each size box, thereby spreading the individual ends sufficiently to allow the size to completely surround and sheath each end in the warp. Usage of a double size box usually allows the reduction in total size content on the yarn and yet provide better weaving protection.

Usage of a double size box sometimes presents a problem of one sheet of yarn stealing size from the other when one

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Periodic soft warps occur from improper roll coverings through allowing the covering to become hard and/or covered with accumulated fibers impairing the efficiency of the covering to properly dress the yarn. Boots normally become hard after running only a relatively few warps and by nature of their construction it is impossible to remove a portion of the boot to expose a clean unworn dressing surface as is the case with a blanket. Present experience indicates that for maximum efficiency in dressing the yarn untreated 100 per cent high grade wool blankets provides more consistently well-sized warps than blankets that have had the highly desirable resilient and absorptive characteristics of the natural wool altered in order to increase the life of the blanket.

Occasional soft spots of ten to 30 or more yards occurring at the start up of the warp or in the body of the warp are usually due to slow gear operation while running lease strings or for other slow gear operations in combination with low size box level and hard cushions on the rolls. Size pick-up varies from approximately one to two per cent less at slow speed than at regular slashing speeds, which, accompanied with other conditions conducive to low added weights, results in a sufficient reduction in pick-up to cause soft warps.

Excessive foaming is particularly troublesome with the British type gums on certain blends containing a high percentage of soaps and other foam producing materials as anti-static and lubricating finishes on the fibers. Should the foam become excessive to the point that the size pick-up is reduced through applying a solution of foam rather than liquid size, soft warps result and commercial defoamers must be added to the mix. Calcium chloride is one of the cheapest and probably the most widely used defoamers in the textile industry, with stearic acid being the next most widely used defoaming agent.

Periodic soft warps can often be traced to holding the sizings for prolonged periods in the storage battle resulting in loss of viscosity and subsequent reduced pick-up on the yarn. In this connection the starch ether gums have a more stable viscosity than the British type gums; consequently, the possibility of soft warps from loss of viscosity is less likely with the more stable viscosity products.

One of the frequent causes of soft warps is the malfunctioning of the humidity system as surely a warp sized for best weaving at 65 to 75 per cent R. H. will be soft at 82-85 per cent R. H. and a warp sized for best weaving at 82-85 will be harsh at 65 to 70 per cent R. H. Droplets of water from the humidifying system or a blast of humid air on the warp will soften the sizing in short order with clinging in the shedding motion becoming apparent immediately.

Set Marks—It has become a stock joke that the best way to prevent set marks is to keep the looms running and it is still the best preventive measure for set marks. Heavily sized warps normally cause more severe set marks for the same period of loom stoppage than does a pliable, lightly-sized warp. Humidities in the range of 65 per cent for viscose and 70 per cent for viscose acetate blends appear to be practicable humidity ranges to allow minimum size addition to the yarn. These humidity ranges also provide conditions for lower moisture equilibrium in the warp yarn thereby reducing the objectionable ductility property of both the viscose and acetate.

A contributing factor to set marks is both the over-drying or under-drying of the warps. If the warps are slashed containing too high a moisture content, the ductile properties of viscose and acetate fibers become more apparent with the spun yarn losing more and more of its ability to recover from the elongation induced by the strain on the yarn from the raised harness when the loom stops; consequently, the stretched ends are more or less permanently increased in length resulting in the characteristic set mark. The severity of the mark on a given warp is along with other factors directly proportional to the amount of moisture in the warp and the length of time the yarn is stressed.

It might appear that over-drying would be a plausible solution to maintaining the proper moisture content; however, an appreciable time is required for fibers to pick up equilibrium moisture in the weave room and the exposed portion of the warp ends may well absorb sufficient moisture to increase the ductility property of the fibers and enhance the prominence of the set mark. In addition, the accompanying adverse effects of over-drying such as brittleness, increased shedding and greater number of breakouts are well known to the spun synthetic fiber slasher and weaver.

Present mill experience indicates that for most mill conditions the optimum sized warp moisture content is one-half to one per cent less than the moisture equilibrium of the sized warps after being conditioned in the specific weave room humidity for 24 to 48 hours. It is virtually an impossibility to control the moisture content of a sized warp with closer tolerances than plus or minus 0.5 per cent and in most instances mills fail to control better than plus or minus one per cent on production runs. For these reasons the establishment of a control point of one-half to one per cent less than the normal moisture equilibrium of the sized warps in the weave room seems sound.

Shedding—Shedding both at the slasher and in the weave room is a constant annoyance to spun synthetic mills. The normal psychological trend is for mill personnel to be concerned first with production, then quality, then when the mill is running well with high production and low seconds, mill personnel become concerned with shedding. Invariably about the time a mill is running well, the supervisory personnel visit a competitive mill and the mill being visited makes an all-out clean-up effort and the looms and weave room are so clean that the visiting mill personnel feel like their own mill is practically covered up with shedding. If the nature of the visit is reciprocal the guest mill personnel will also make an all-out effort to clean up their weave room when their former hosts visit their mill; consequently, personnel from both mills think the other mill has a much lesser amount of shedding than their own mill.

It is a foregone conclusion that by virtue of their inherent chemical and physical composition viscose and viscose blends are going to shed more than cotton warps; however, it would represent poor judgment to blindly accept shed-

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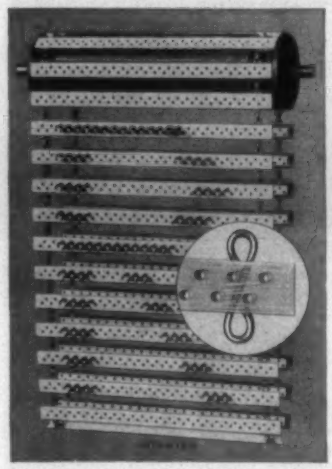

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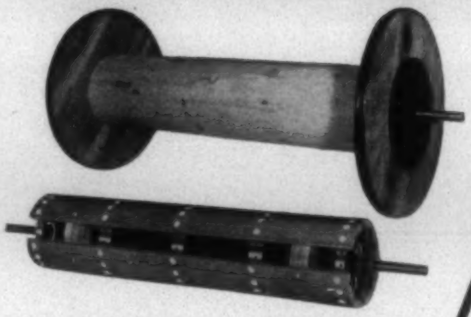

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ding as a necessary evil without exerting every effort towards minimizing shed both at the slasher and at the loom.

A thin-bodied sizing formulation will keep shedding at a minimum at the slashers but normally increases the shedding at the loom while a heavy bodied sizing increases shedding at the slasher but reduces shedding at the loom. There is only one practical approach to determining the proper concentration-viscosity ratio for sizing and that is to experimentally vary the size and observe the mill results.

A somewhat similar consideration exists relative to the amounts of softener added to the sizing formulation as excessive amounts of softener will reduce shedding at the slasher but will promote softness at the loom. Too little softener results in excessive shedding at both the slasher and loom.

Over-drying of the warps with too high slasher cylinder temperatures results in embrittlement of both the size and the hair fibers protruding from the body of the yarn. An increased force is necessary to shear the individual ends apart at the lease rods resulting in the disruption and partial removal of the size film and fibers that have been bonded together with the over-dried sizing. Since the over-dried fibers and size have lost their life or characteristic of being bent and/or deformed and returning to their original shape, the drop wires, heddles and reeds knock the fibers and size from the body of the yarn at the various points of contact.

In instances of high-count warps a double size box effectively reduces shedding at both the slasher and loom by more effectively sizing the individual ends and eliminating the objectionable plastering of size on the body of the yarn.

Protein bearing adjuncts such as gelatin and gelatin base products in combination with British type gums are believed to assist in reducing the shedding of acetate fibers due to slightly better adhesion to the acetate portion of the blend than with the British gum by itself. The starch ether gums exhibit an increased adherence to acetate fibers over that of the British type gums; consequently, gelatin is seldom added to the starch ether gums.

The loom shed from a well-sized warp should contain some size as well as fiber due to the fact that the abrasive section of the loom should be carried to a large extent by the size film in and on the yarn. Loom shed from a warp that does not contain an appreciable amount of size with the fiber indicates that the sizing is not functioning at its maximum efficiency to provide optimum weaving protection.

Knees—Knees are a common fabric defect particularly in sateens and result from (1) too heavily sized or too harsh warps causing gouts and knots to be beaten up as a loop in the cloth; (2) insufficient stretch at the slasher to minimize the effect of slack ends; (3) soft warp beams; and (4) insufficient tension on the warp ends in the loom.

Warps Composed of Hydrophobic Fibers

The slashing of the newer synthetic fibers which fall in the general classification of hydrophobic materials pose a challenge to both the textile and the size manufacturer with the paramount problem of getting a sizing to adhere to the yarn and offer sufficient weaving protection to facilitate the passage of the yarn through the loom. As a class, these moisture hating fibers absorb only a negligible amount of water which means that in slashing the size is held in and on the yarn in the wet state entirely on the basis of the viscosity and/or filming properties of the sizing. A crude analogy of sizing the hydrophobic fibers is that of painting a glass rod in that a thin paint containing a high proportion of solvent fails to cover the rod while a heavy bodied paint containing an ample amount of oil or resin and pigment leaves a heavy protective film. In sizing the solvent can be compared to water and the oil or resin and pigment to the starch base product and sizing adjunct.

A satisfactory sizing for the fibers having low moisture absorption capacity must possess strong adhesion to the fiber and sufficient elasticity to the dried state to prevent the film from shattering when these very elastic fibers are stretched. The characteristics of the more fluid of the hydroxy alkyl starch ether gum series have been particularly adaptable for sizing these fibers in conjunction with polyvinyl alcohol (Elvanol 51-05) and wax. Mill experience has shown that relatively high concentrations (125 to 175 pounds per 100 gallons) of the starch ether gums containing 25 per cent polyvinyl alcohol (Elvanol 51-05) and five per cent high melting point waxes (percentages based on the weight of the starch ether gums serves as a mill production size for fibers of this type).

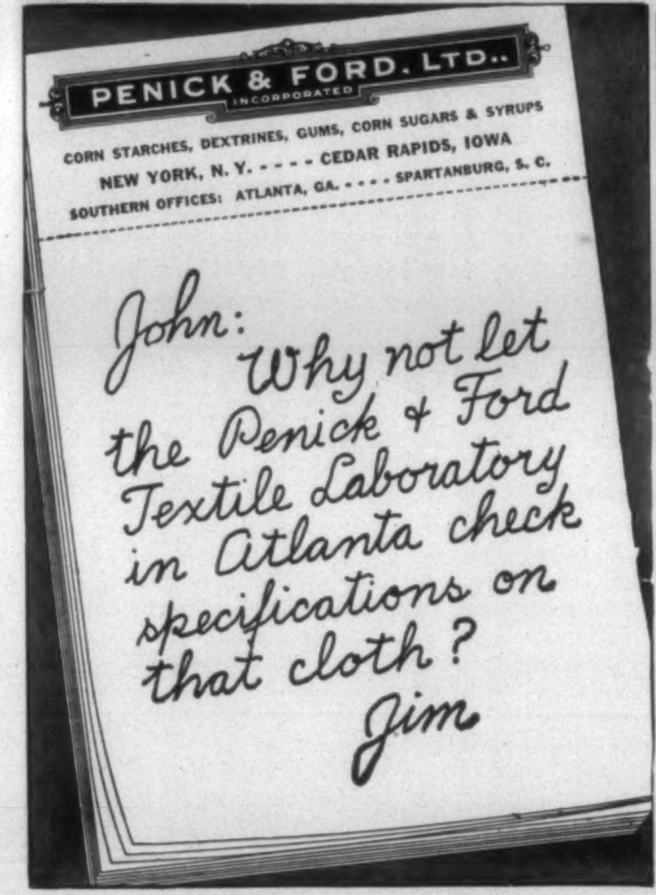
In the sizing of the more difficult weaves with singles yarn composed of 100 per cent fibers of this classification added weights of 15 to 20 per cent have been secured in order to provide adequate weaving protection and eliminate clinging. Added weights in this range of sizings composed of the starch ether gums polyvinyl alcohol and wax appear to have licked the characteristic rugged clinging in the shedding motion of 100 per cent dynel warps.

Technical Assistance from Sizing Manufacturers

In conclusion, it is suggested that technical representatives of manufacturers of both starch base materials and sizing adjuncts can be of tremendous assistance to mill personnel in the selection of the most suitable sizing material with reference to basic product, viscosity and concentration for the specific sizing problem as well as technical assistance in slasher application. In this connection past experience has shown that as many poorly sized warps result from faulty application of the size in the slasher room as by the improper choice of the starch base materials and adjuncts. It is to be presumed that representatives of sizing manufacturers may be somewhat prejudiced toward the usage of products of their respective manufacture but the textile mill can be assured that the technical representative will provide expert opinion in the selection of the proper product of his company's own manufacture for the mill's specific problem. The technical "know-how" of product and application of sizings would be considered an integral part of the product.

Andy Anderson's remarks were delivered April 12 at a meeting of the South Carolina Division, Southern Textile Association, in Spartanburg.

Among recent patents granted Carolinians, according to Paul B. Eaton, is the following: Patent No. 2,551,920 has been issued to Thomas J. Willis and William A. Smith, of Greenwood, S. C., for a tension apparatus for loom warp yarns. This apparatus is designed to prevent the occurrence of set marks in cloth when it is necessary to stop the loom, which set marks are caused by the relaxing of tension in the warp yarns upon stoppage of the loom.



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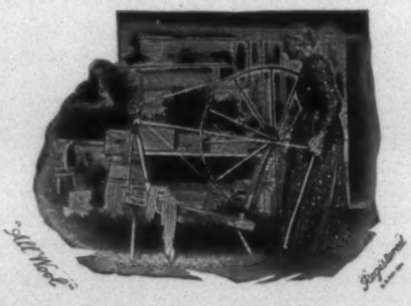

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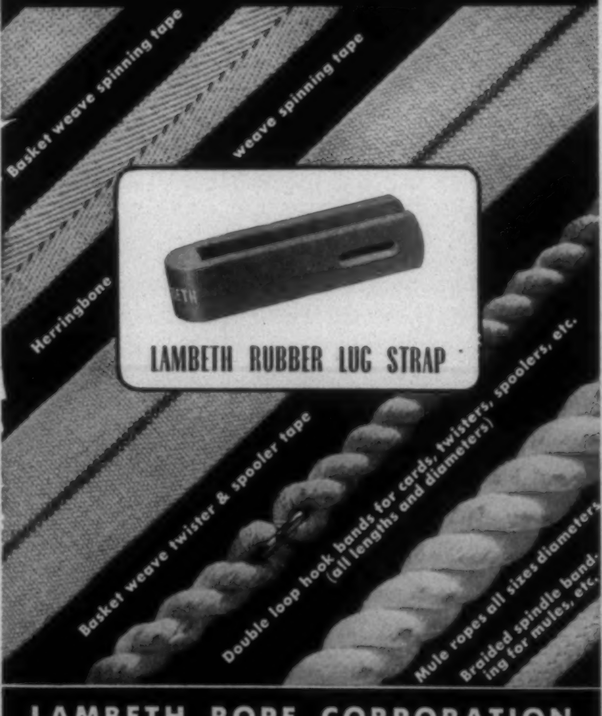
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THIS has aptly been called "The Chemical Century." Certainly the fantastic growth, almost miraculous accomplishments and sensational contributions of this science are too familiar to need any mention. Now more than ever any plant which does not keep posted and make constant changes is doomed to bankruptcy. In the dyeing and finishing of cotton textile fabrics 41 per cent of all purchases is dyestuffs and 34 per cent is chemicals, making a total of 75 per cent for chemicals and related compounds. The balance of only 25 per cent goes for coal, containers, machinery parts, and mill supplies. These are necessarily approximate figures and would vary from plant to plant and from year to year depending on the amount and character of the business being done. Chemicals are not only the biggest single item purchased but represent by far the largest opportunity for savings which can be effected through substitutions, bargaining on prices, freight differences, container angles and many other ways.

The purchasing agent should have as complete a foundation as possible of the fundamental principles of both inorganic as well as organic chemistry and he should be thoroughly familiar with the plant and processes where the materials are to be used. In a field undergoing such vast and rapid changes he must be broad-minded and open-minded. He must be receptive to all ideas from all sources whether suppliers or from within his plant. As one salesman's card puts it, "He who won't listen can't judge." Since the basic raw materials are drawn from sources throughout the whole world he should be vitally interested in world conditions, international relations, and politics. Finally, my personal opinion is that it is desirable for him to be financially interested, even if only in a small way, in large corporations such as Union Carbide and Carbon, Du Pont, Monsanto, Dow, Tennessee Eastman and Celanese, to mention only a few, because of the insight he will receive into their corporate structure, operations and particularly their future plans.

In buying chemicals more than in any other field price is not too important. Anyone can find a poorer quality material at a cheaper price, perhaps one which has been diluted (usually, incidentally, by a percentage larger than the percentage of cut in prices) or even material of equal quality from a supplier who normally does not supply the territory but is willing to cut price and absorb additional freight temporarily to move an oversupply and who pulls out as soon as he can sell his wares in his own backyard without this economic handicap. In the long run it is far better to buy at a fair price from stable suppliers who can be depended upon to give shipping and technical service. We have had suppliers advise us of technical developments which have drastically cut the amount of the material they were supplying us in our processes, knowing all the time that this information would reduce our business with them permanentaly. Almost without exception, where volume purchases of essential items are involved, it is wise to have at least two sources of supply. The possibility of fires, strikes, and raw material shortages make this essential and most suppliers prefer not to have the responsibility of being the only source.

Jobbers have a place and when they represent several sources may even have an advantage in times of shortage or when a nearby stock may be needed for emergencies or on less-than-carload shipments, but in most cases the prime source of supply should either issue the contract or acknowledge responsibility for its performance.

How to Save Freight Costs

With rates increasing at an alarming rate, freight is becoming a larger and larger portion of the final cost. Chemicals, however, I believe, more than any other class of material, offer a wide field for avoidance of this portion of cost.

The most obvious method is to purchase from those suppliers nearest to you. This is not only important because of lower rail rates but it is often possible to work out a trucking arrangement which provides quicker service at even lower cost. The second step is to purchase in quantities, within inventory limitations, which will justify the lowest rate schedule. A third means of saving can be effected through the switching of purchases from small units such as bags and drums to larger units such as bulk and tank cars. Here there may be a loss of salvage value of the used containers, but this is insignificant in comparison to the savings in handling costs from the carrier to storage and from storage to the point of use.

Finally, and this type of economy is, I think, peculiar to the chemical industry, it is often possible to switch to the use of more concentrated materials, thus eliminating freight charges on water, Glauber's salt and other diluents. There is an almost universal trend in this direction throughout industry. Some have been reluctant to use these more concentrated materials on the ground that in the hands of unskilled labor there would be a higher cost of materials inevitably wasted in handling and processing. However, generally speaking, there is a percentage of waste in these operations and while the value per pound wasted would undoubtedly be higher there would be fewer pounds wasted because there would be fewer pounds handled.

Another step which can be and often is taken to counteract this argument is to make up stock solutions or stock mixes in the plant which involves simply cutting back the more concentrated materials in a mixing tank and feeding them to the processes at the old strength. The labor cost of this additional operation is far more than offset by the freight saving.

Every industrial purchasing agent owes his company concrete assurance that the products he buys are of dependable high quality . . . . and that each chemical is not only the best money value but also the best suited material known to do the job for which it is purchased. The only possible way that a purchasing agent can provide this desirable feeling of confidence is to have and use the full support and co-operation of an intelligent and well-directed analysis and research laboratory. It is through this medium alone that he can evaluate the chemicals presented to him and direct their use properly in plant processes without wasting the time of other valuable technical and supervisory personnel.

Once a product has passed all laboratory tests and requirements the report should be thoroughly discussed with the head of the department where it is to be used and only after receiving his consent should a small quantity be ordered for plant trial. Under no circumstances can the purchasing department assume that the laboratory can select the products to be used in the plant. Even the largest chemical corporations with the finest research equipment and the most competent technicians make no guarantee of the performance or results of their products because of the varying conditions in effect in their customers' plants. Very often what will appear excellent in a laboratory will not work at all in a plant and even chemicals or dyestuffs which may be most satisfactory in one plant will be a total failure in another. Difference in water, air, equipment, and personnel are a few of the factors effecting their performance.

In the use of chemicals there is often a safety factor present provided by the deliberate use of an excess of one or more of the cheaper ingredients over the amount required by a scientific determination from formulae. This is done to insure against the possibility of an incomplete reaction which would either ruin expensive goods or necessitate reprocessing which might cost hundreds or even thousands of times in labor and materials the cost of this surplus. Among the products in the use of which this is a factor are desizing agents, surface active agents such as detergents and penetrants, salt, acid and sodium hydrosulphite in dyeing. This practice adds enormously to the difficulty of checking and evaluating this group because although a product may appear to have merit in laboratory tests and even may seemingly perform splendidly in the plant for a time you are never quite sure whether the product is really better money value or whether you are simply operating with a reduced safety margin with consequent risk of costly trouble in the future.

Always buy basic chemicals. Beware of the overpriced mixtures of well-known chemicals often offered by salesmen as the cure of all the ills of the industry. There is no advantage whatever in this type of compound and several obvious disadvantages besides their higher cost. Where each ingredient is used separately only those required for each process and only the quantity needed can be used. With the compound some of each is present whether necessary or not and unless the blended product is broken down and its analysis known the user is always in the dark as to just what basic chemicals he is putting into the process.

The interrelationship of raw materials with chemicals and of chemicals with other chemicals is interesting and of prime importance. Today we have a severe shortage of sulphur and therefore of sulphuric acid and possibly later of various sulphonated products. Although it is not present in the final product, zinc is essential to the economical production of sodium hydrosulphite used in large quantities as a reducing agent in vat dyeing. There is no known practical substitute for sodium hydrosulphite and without zinc dust this material disappears from the market. Most chlorine and caustic soda is produced simultaneously by the electrolysis of brine. What affects the supply of one affects the supply of all. Under many circumstances formic acid and acetic acid are interchangeable with slight adjustments. Therefore, the price in relation to the acid values of each should be under constant surveillance. The availability of benzine governs the amount of certain types of synthetic detergents and a lengthy coal strike will indicate to the well-informed the probability of a shortage of coal tar and later of benzine, dyestuff intermediates and dyes.

The purchaser of chemicals should not only anticipate his needs when certain obvious danger signals are apparent but he should carefully appraise the facts in the news from day to day and often gamble on the balance of probabilities both with reference to availability and also long-term price fluctuations. There are those who say "The purchasing agent should never try to anticipate the market for if he could he wouldn't be purchasing but would make a fortune speculating." While this is another of those half truths, it is obvious that any purchasing agent who is guilty of buying heavy when a commodity was at an historical all-time high, or of keeping purchases to a minimum when the price of the same commodity was at or near an all-time low, should be relieved of his duties. Equally, one who simply maintains the same inventory at all times is merely dodging one of his most important opportunities to make decisions based on judgment.

Recent Developments

Thus far we have touched briefly on the various aspects of the buying mechanism. Of infinitely more importance, however, is the selection of the chemicals to be purchased. Therefore let us in closing take a glance at a few of the developments of recent years—which are revolutionizing the dyeing and finishing industry.

There are the sequestering agents, both inorganic and organic, which are extremely versatile complexing agents of exceptional stability. They sequester and inactivate all common metallic ions, including hard water salts. In brief, they soften water without precipitation. There are the surface active agents—the alky aryl sulphonates, sulphated fatty alcohols and more recently the non ionics or ethylene oxide condensates; most important in this group are the detergents or soaps. The industrial demand for synthetic detergents has resulted in an increase in their production from 700,000,000 pounds in 1948 to 1,260,000,000 pounds in 1951, and it is predicted by Lawrence H. Flett of Allied

Chemical and Dye Corp. that the annual total will reach 3,000,000,000 pounds within a decade.

Add to these flameproofing and crease resistant finishes; mildewproofing with copper napthenate, copper 8 quinolinolate, the mercaptous or trichlorophenol esters; permanent water repellent finishes using pyridine, the mixed picolines or alkaline resin types.

Even in plant maintenance there have been gigantic strides with lithium and silicone based greases to replace the old sodium and calcium based lubricants; and polyvinyl coatings to replace paints wherever corrosive conditions are present.

A whole new science and a new field of production has grown out of the petroleum industry in what has come to be known as petrochemistry. Back in 1940 the oil industry and the chemical companies had approximately $350,000,000 of capital invested and production amounted to a little over four billion pounds a year of various chemical products from petroleum and natural gas. At the close of last year it is estimated that very close to two billion dollars has been put into petrochemistry and that output has increased to some 16 billion pounds. The field has been only scratched, even though today as many as 1,500 different chemicals are being produced from this cheap raw material.

Just as there have been miracle drugs which have captured the public imagination, there are miracle chemicals available and to come. It is up to us as purchasing agents to encourage their development, to recognize them when they appear and to evaluate them and to see that they take their proper place promptly in our operations.

Mr. Jordan appeared on the program of the Spring meeting of the Carolinas-Virginia Purchasing Agents Association March 21-22 at Greenville, S. C.

Dan River's X-2 Changes General Structure & Surface Appearance Of Viscose Fabrics

IN tests that it has conducted of its recently announced X-2 chemical treatment for viscose rayon and rayon blend fabrics, the research and development division of Dan River Mills, Danville, Va., has established with scientific accuracy some of the changes produced in such fabrics by this treatment. Details of these tests, accompanied by the photomicrographs showing the changes, are set out in a statement by L. K. Fitzgerald, head of the research and development division.

The tests were made with identical swatches of the same spun-viscose fabric, one swatch untreated and the other treated with X-2 chemical. Both samples had been subjected to repeated launderings. Photomicrographs of the surfaces of the two fabrics, and of cross sections warpwise and fillingwise, were made on a magnification of 25 for all samples. These photomicrographs, reproduced herewith, show the changes, after washing, in the surface appearance and in the general structure of rayon fabrics brought about by the X-2 treatment.

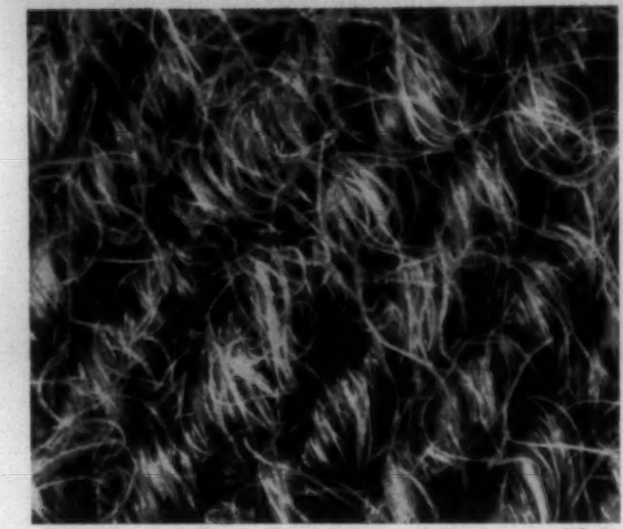
"The surface pictures show outstanding differences in the amount of 'free fibers,' or nap, on the untreated versus the treated fabrics," said Mr. Fitzgerald. "The treated fabric shows that the yarns remain uniform and compact, the twist direction being much more obvious. The photomicrographs of warp and filling cross sections taken from these identical untreated and treated fabrics confirm and explain the surface difference. The yarns in the treated fabric shown in cross section are more dense and compact, with less flying fiber. The treated fabric shows only a slight amount of nap. The yarns of the untreated fabric are more open, with much 'free' and flying fiber that gives a napped appearance and prepares the way for extensive abrasion in wear and washing.

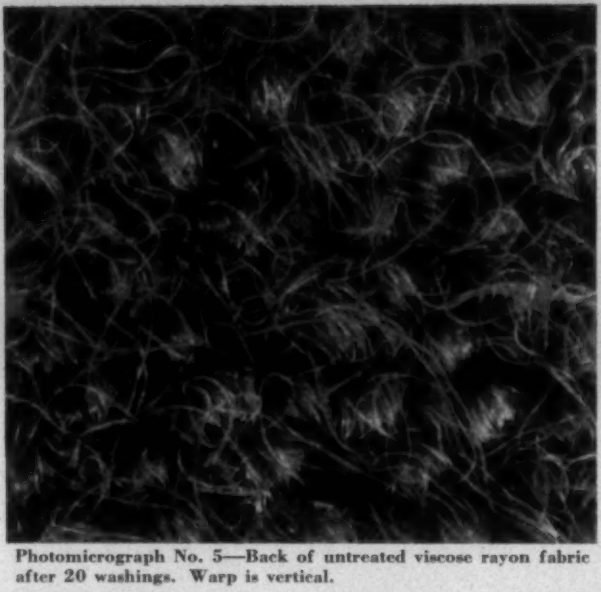
"It is also apparent that the treated fabric has shrunk less, in that its yarn cross sections in both directions are farther apart than is the case with the untreated fabric, and have not been shrunk together by the washing process. Quantitative measurements of the photomicrographs show 20 per cent more shrinkage in the untreated fabric over the treated fabric.

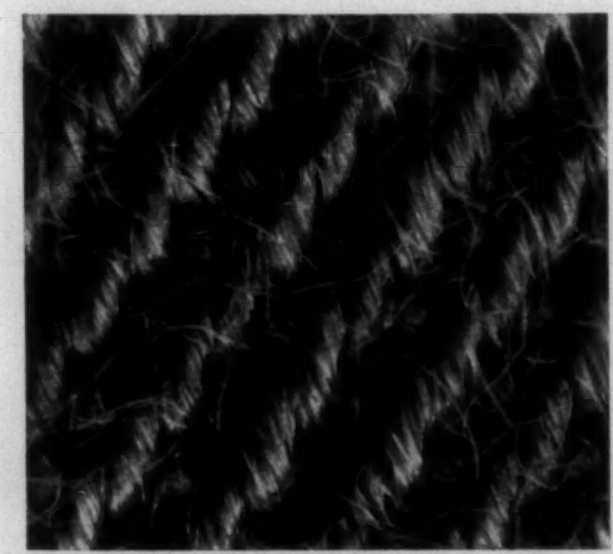
"There is no mystery," continued Mr. Fitzgerald, "as to how the X-2 treatment brings about such changes in the surface of the rayon fabric. The cross-linkage set up by the X-2 chemical binds the cellulose molecules within each fiber so that much less water can penetrate and swell the fibers than is the case with the untreated fibers. Consequently, when the treated fabrics are washed the fibers do not become swollen as do the untreated fibers. The swelling of the fibers of untreated fabrics, especially those on the surface, causes these fibers to be easily abraded on washing so they rise above the surface and become 'free fibers,' thus producing the nap so noticeable on the surface of the untreated fabric.

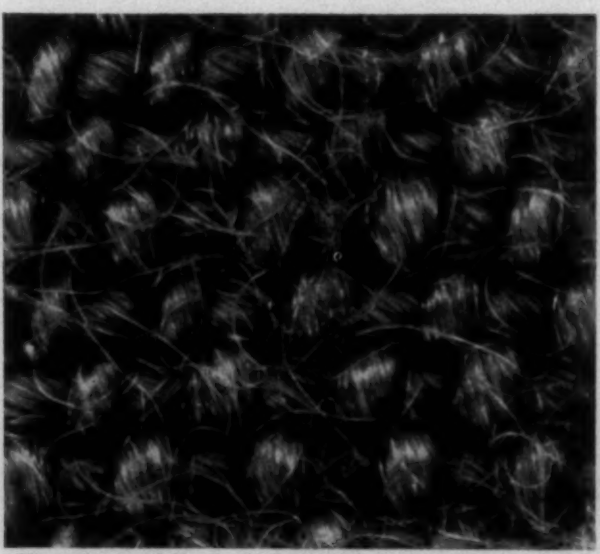
"Since the cross-linkage in the X-2 treated fibers is permanent for the life of the fabric, there is little napping of the fabric through repeated washings, or through wear, and this factor contributes heavily to the longer wear-life of the treated fabric. Further, this resistance of the treated fiber to swelling by water establishes a very definite resistance to embedded soiling, in this way: Soiling of the surface of the treated fabric in wear may occur, but since the soil cannot penetrate the fibers, even though water-borne or moisture-borne, all such soil remains on the surface of the fabric and may be easily removed.

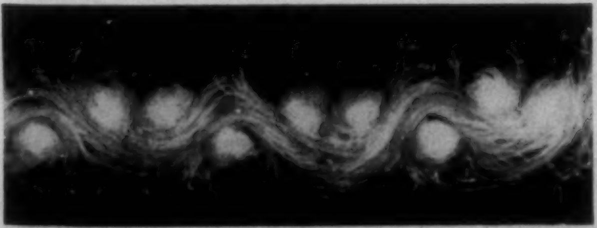
"The same factor prevents absorption by the fibers of odor-forming perspiration, and it greatly shortens the drying time of treated fabrics after laundering. I would like to add that these photomicrographs confirm all of our standard tests as to the shrinkage control established by the X-2 chemical. Initial shrinkage of the treated fabric runs less than two per cent by the standard tests, and there is practically no progressive shrinkage from repeated washings. The standard 20-wash cotton test has shown this consistently with all types of X-2 fabrics."

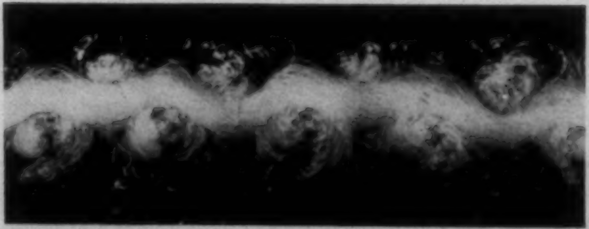

Photomicrograph No. 1—Face of untreated viscose rayon fabric after 20 washings. Warp is vertical. The magnification of all photomicrographs is 25.

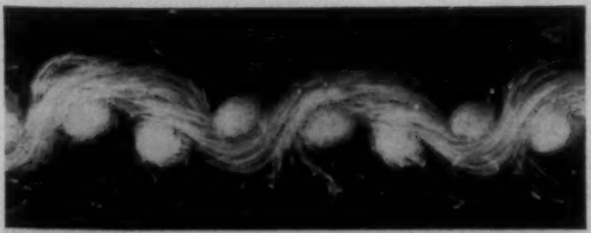

Photomicrograph No. 5—Back of untreated viscose rayon fabric after 20 washings. Warp is vertical.

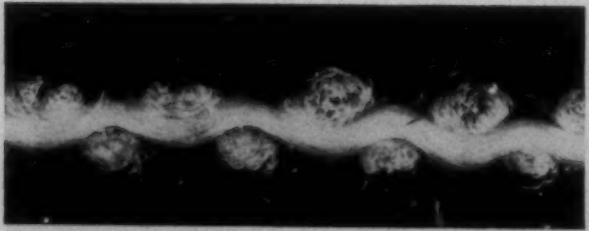

Photomicrograph No. 2—Face of X-2 treated viscose rayon fabric after 20 washings. Warp is vertical.

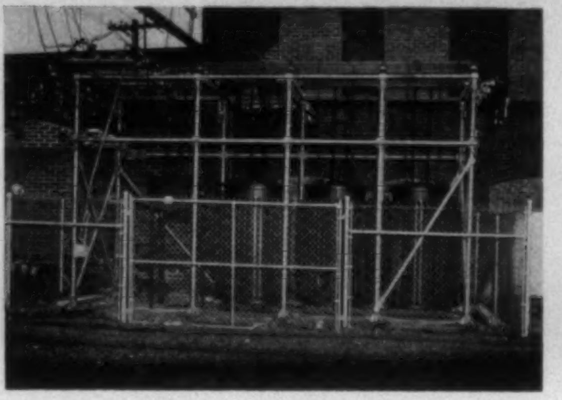

Photomicrograph No. 6—Back of X-2 treated viscose rayon fabric after 20 washings. Warp is vertical.


Photomicrograph No. 3—Cross section of filling in the warp direction of untreated viscose rayon fabric.


Photomicrograph No. 7—Cross section of warp in the filling direction of untreated viscose rayon fabric.


Photomicrograph No. 4—Cross section of filling in the warp direction of X-2 treated viscose rayon fabric.


Photomicrograph No. 8—Cross section of warp in the filling direction of X-2 treated viscose rayon fabric.



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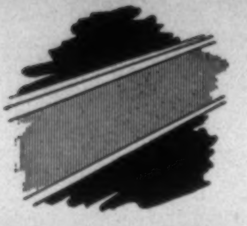

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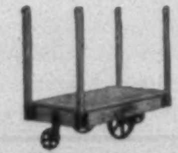
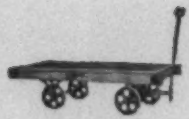
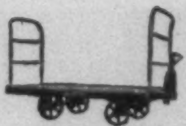


Balance Type Stake Trucks

Balance Type Rack Trucks



Wagon Type Trucks



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A. I. E. E. Southeastern Textile Conference

By JAMES T. MEADOR

THE Southern Conference on Electrical Application for the Textile Industry May 1 and 2 at the A. French Textile School, Atlanta, Ga., experienced widespread participation by both the textile and the electrical industries. It was held under the joint sponsorship of the Georgia Section of the A.I.E.E., the textile sub-committee of the A.I.E.E., the A. French Textile School and the School of Electrical Engineering through the Engineering Extension Division of the Georgia Institute of Technology.

The two-day meeting consisted of a program of three general themes: (1) textile mill vibration and control; (2) the electrical industry's application of equipment to the textile industry; and (3) the textile industry's adaptation of the electrical industry's products.

Irving S. Bull, chief electrical engineer for Dunean Mills of J. P. Stevens & Co., Greenville, S. C., presided over the Thursday morning session.

Mill Vibration and Correction

The first of the three papers of the Thursday morning session was presented by F. J. Crandall, assistant vice-president, Liberty Mutual Insurance Co., Boston, Mass., whose paper was voted one of the best 25 papers related to the textile industry by the Institute of Textile Technology within the past year. Mr. Crandall pointed out that the trend of competition in the textile industry necessitated higher speed machinery for the increased production necessary, which, of course, has direct reference to looms as the production unit which continually imposed greater forces upon the textile mill building structures in three planes of action, that is, vertically, horizontally through the length of the mill, and most extremely across the width of the mill due to the dynamic unbalance of the looms in operation which, when they get in momentary step with each other generate forces which produce unsafe conditions in the structure, which in turn would produce unsafe locations for the textile workers, which is the prime concern of the Liberty Mutual Insurance Co. He illustrated an accelerograph which was designed to measure the acceleration frequencies of the forces imposed by a mill building wall due to various machinery operations. This accelerograph measured and timed all surges or forces upon a 35 mm. motion picture film operating at a constant speed, thus allowing the operator to have a permanent record of vibration in any structure under study. Mr. Crandall went through the method of translating this data by means of calculations to the necessary solutions of the problems for correction by any one of three methods of reducing the vibration: stiffening the structure, reducing the stiffness of the structure, or balancing the loom.

He explained that while all three have been used successfully the first method appears to be the most popular among engineers involved in this field, and, although this method is expensive, when it is properly installed, it produces the desired results when the weave rooms are on the second floor of the building. There was an alternate solution whereby the same results could be obtained by the installation of diagonal braces in the basement of structures where there was sufficient head room for them, with a favorable comparison of cost to buttresses, yet having the disadvantage of not allowing free movement in the areas where the braces are installed. Another type of stiffening element for buildings would be a structural steel truss on the outside of the building walls, as well as another method of installing "H" column sections or "I" beams to the exterior walls.

The second method of reducing the stiffness of the building calls for the mounting of beams on spring-type bolsters made up similar to a railway freight car truck bolster which in this case would absorb the vibrations and motions imposed upon the beams by the machinery carried on the floor above.

The final method, by reducing the vibration by balancing is a definite possibility, but from a competitive standpoint, is financially impractical at the present time.

Loom Desynchronizing

The second paper was presented by Fred Snyder, engineering supervisor, Westinghouse Electric Corp., Boston, Mass., on the subject of "Loom Desynchronizing." In introducing his paper Mr. Snyder very graphically and emphatically illustrated the effect of loom synchronization where two or more looms get in step at one time with near disastrous results in a great many of the older mills where looms are placed on the second, third, or fourth floors. He pointed out that strengthening the walls and foundations was possible, but extremely expensive and that as in all cases of the trouble the best solution was to eliminate the source of the trouble. This solution which he offered was the idea of operating looms in pairs so that the action of the crankshafts in throwing the lay of the loom backward and forward would be 180° apart in their operation, which in turn, by means of electrical control of certain design and arrangement applied to the individual motors would complete the two looms 180° out of phase, but first must be able to detect that one loom might be creeping ahead of the other, and then take some corrective action to keep the two looms at exactly the same speed. In designing such a scheme or device the basic operation of the loom must not be affected and the following conditions must be met:

(1) Either of the two looms must be able to be started and stopped at any time without affecting operation of the other.

(2) The speed of the loom must not be reduced at the instant of picking or beat-up, since this might cause faulty picking or a mark in the cloth. This latter is especially true of synthetic yarns.

Spindle Vibration Control

The third paper, "Vibration Control of High-Speed Twister Spindles," was presented by Hans Wormser, engineer, Universal Winding Co., Providence, R. I. Mr. Wormser pointed out that the subject of vibration control of high-speed spindles was of great importance to mill men and that the costs of spindle bolster vibration were considerable both direct and indirect, as it is a symptom of heavy spindle bearing loads, which in turn mean extra heat and power consumption. He pointed out that some of the causes of spindle bolster vibration is the unbalance of the load that the spindle carries caused by out-of-round conditions of the bobbins or the package of yarn on the bobbin, or may also be caused by factors which are inside the bobbins and which are invisible and cannot be measured by a scale or micrometer, nor judged by the eye.

A bobbin turning on a spindle at high speed has so much inertia that it will rotate very much on an axis of its own choosing. Therefore Mr. Wormser's company is working in conjunction with the bobbin manufacturers on means by which the mills can eliminate those bobbins which cause the most serious vibration, which is a dynamic balancing machine, the operation of which would become one of the production steps in the manufacture of bobbins. They are also redesigning and building spindles which will vibrate less under given unbalanced loads, and they have also built a spindle mount which can isolate most of the remaining spindle vibration from the swing and the rest of the uptwister.

The first unit for balancing bobbins is called the bobbin balance indicator, which is in reality a spindle vibration meter. In mills where the bobbin unbalance condition is considered very severe checks have shown that only one-quarter to one-third of the bobbins cause really serious vibration, but in most mills the percentage is far smaller. Mr. Wormser explained their efforts in producing trouble-free, high-speed spindles which would allow operation with more unbalance with less resultant vibration.

Motor Applications to Textile Machines

The afternoon session was led by H. S. Colbath, plant engineer, Bibb Mfg. Co., Macon, Ga., who called upon Maurie Weitekamp, district manager, Louis Allis Co., Atlanta, to present the first paper written by him and John J. Kirkish, entitled "Matching Motors and Machines in the Textile Industry."

Mr. Weitekamp pointed out that the distribution of individual motor drives has now become a standard for reduced maintenance costs, safety, appearance, and uniform quality of the product. In applying motors to textile machinery two situations must be considered: (1) the conversion of existing installations from line shafting to single motor drives and, (2) the design of new textile machinery. The former naturally imposes restrictions which are not a factor of the latter, he told the group. In powering textile equipment the motor manufacturer is faced with three basic considerations—mechanical construction, electrical characteristics and temperature ratings. These are supplemental to considerations of motor control, all of which influence the final design to a marked degree.

He described three types of enclosures in regard to mechanical construction that are available for different purposes. Motors of small output, three horsepower and smaller, can be built totally-enclosed, non-ventilated without penalty of frame size since temperature need not be the determining factor. This is the ideal enclosure for lint-laden atmospheres on both cotton spinning and woolen machinery. Motors of larger output can be built in the self-cleaning or lint-free textile construction and are ideal for cotton spinning mills where there is present fibrous dust and lint.

Open motors can be used successfully where there is less fire risk and less dangers of motors becoming clogged, he told the textile engineers. Other factors influencing the final mechanical design include such items as space limitations, special mounting as well as special bearing design which for example would be necessitated by the continuous vibration and impact action of a reciprocating loom load.

Problems of space limitations can be solved by "hour glass" shaped motors such as specially designed for use on existing Draper high-speed looms. Special mountings have been designed such as a totally enclosed non-ventilated round frame, ball bearing, loom motors suitable for three-point suspension on a modern Crompton & Knowles loom. The use of special flanges can greatly simplify textile machinery by eliminating countershafts, belts, pulleys, couplings and other mechanical parts, he declared. The second group of problems confronting the motor builder is the incorporation into the motor of the exact electrical characteristics required by the machine and the application. Here, careful consideration must be given to the matter of torque currents, full load slips, efficiencies and power factors.

Mill Maintenance with a System

The second paper of the afternoon session was presented by Dan McConnell, plant engineer, Cone Mills Corp., Greensboro, N. C. He presented his paper, entitled "Maintenance of Electrical Equipment in Textile Mills," in a down-to-earth, easily understood manner with side remarks concerning their policies of having their maintenance men carry Wigginton testers and never go in on a circuit with their hands or a tool without testing first. They also have several of the smaller tong-test ammeters that have been quite satisfactory for hip-pocket carrying.

Cone has a project underway of numbering columns in the mills so a geographical location in any part of the plants can be determined from this column marking. This is just getting started on a test basis, so nothing conclusive has come out as yet though the system is used routinely in many of the larger machine shops in the East.

Some of the new air-drying slashers run on the fan motors in a very high ambient and they have had some trouble with them. Insulating and ventilating of the motor compartments cured the trouble. Some recent experience with transmitter-type loom drives has shown that the linkage adjustments on these devices are quite critical if you want good bearing life, and the responsibility for checking this setting and keeping it properly adjusted should be definitely placed when these drives are installed.

Since their power system remodeling is now almost complete they will shortly start on a project of numbering their feeders and control equipment. The scheme they propose to use was a steal from the Dewey decimal system used in cataloguing library books and may be useful to someone. Each feeder leaving a unit substation will be numbered 1-2-3-4 in arabic numerals. The first disconnect switch or section breaker coming off this feeder will be lettered "A" the second "B," and so on. The first control device behind the section breaker will be numbered as "1-2-3." The number appearing on a magnetic switch on a spinning frame for instance would probably read "3C4," meaning it was magnetic switch "4" fed by section breaker "C" from substation feeder "3." This helps a maintenance man as he can pull disconnect switch "C" and know for sure how much he has cut off and that he is working behind an open switch.

In working with some fairly complicated schematic wiring diagrams recently, they found it useful to mark them up in a manner that essentially gives co-ordinates for each device shown on the schematic. The particular schematic in question had some A.C. power wiring at the top, some D.C. power wiring in the middle, and some D.C. control wiring on the bottom part of the figure. At each horizontal line in the A.C. part of the diagram they put a Roman numeral, and for each feed taken off inside the outer borders of the figure they put down a letter subscript as "A," "B," and so on. In the D.C. power end the same thing was done using capital letters without a numerical subscript, using small letters for subscript on connections taken off inside the edges of the figure. In the D.C. control end where each line came to the left of the figure an arabic numeral was put down, with letter subscripts for each connection taken off a given line inside the outer borders of the figure. Above each contactor operating coil they put in the number of normally open and normally closed contacts appearing on each contactor and the levels in the drawing at which these contacts occurred. The main use of this kind of marking has been to indicate to the maintenance men where they can look for the various contacts when they are chasing trouble through the schematic. On one of the control drawings they found it expedient to list the voltage drops across the various elements of the control so a fast check through these points could help them localize the trouble they were looking for. Samples of these drawings were available for inspection.

Some information has recently come to hand about overvoltage disturbances that can occur in an ungrounded secondary system as is used for power distribution in most mills. The discussion leads toward consideration of a grounded "Y" arrangement on unit substation transformers, and the thinking advanced is very definitely worth consideration on a new job.

The third paper was presented by Swaffield Cowan, engi-

HIGHLAND COTTON MILLS HAS BIG SAVINGS AFTER NEW SUBSTATIONS INSTALLED—Savings of approximately 25 per cent on motor maintenance and 20 per cent on light bulb replacement have been effected at the Highland Cotton Hills, High Point, N. C., since the installation of five new General Electric load center substations a year ago, according to L. M. Young, mill maintenance man. Before the new larger power units were installed, the company had three 750-kva transformers which had progressively become more and more overloaded owing to increases in the mill electrical load. This overload and relatively long cable runs to many of the motors resulted in unduly low voltage at motors, causing them to overheat. Attempts to maintain motor volage by using higher voltage taps on the transformers caused high voltage during light load periods and resulted in excessive lamp burn-outs.

To correct the situation and to provide additional power for anticipated further increases in mill load, four 1,500-kva and one 750-kva load-center unit substations were installed. The various units were strategically located to obtain minimum length of cable to the load each unit served. The result has been stable voltage and maintenance savings.

neer, Factory Insurance Association, Charlotte, N. C. He acted as moderator in the "Discussion on Desired Characteristics of Industrial Enclosures for Textile Mills," after which a ballot was taken with everyone in the audience participating and casting a vote for the most preferable type of enclosure to meet the conditions imposed by the textile industry. The results of this ballot will be presented to the N.E.M.A.-A.I.E.E. joint committee for the purpose of developing a suitable enclosure for such purposes.

Textile Mills Require Special Cables

The Friday morning session was presided over by Mr. Cowan, who introduced John E. Hogan, engineer, Okonite Co., Passaic, N. J., who presented his paper, "Fundamental Insulation Requirements for Exterior and Interior Power Distribution Systems." He pointed out the various voltage characteristics of operating circuits and power-distribution circuits in textile mills and other plants as being in the 0/600-volt class, which included the bulk of power, control and lighting circuits in industry with 2,300/4,160-volt circuits being widely used as generators and distribution circuits or for large horsepower motors. The 6,600/6,900-volt circuits being quite frequently used for generator and distribution circuits where it was necessary for greater capacities with a trend toward even higher voltage circuits on the order of 15,000 volts.

For each voltage classification he pointed out the definite advantages of the various types of insulations over other types which indicated the advantage of rubber-insulated cables which were shielded, neoprene sheathed cables which, though slightly more expensive in cost, the paper or varnished cambric cables, provide the reliability of these types for primary circuit distribution and eliminate the need for specialized equipment, such as potheads, lead-wiped splices, and trained personnel for installation and maintenance.

Mr. Hogan gave some informative tips concerning the use of aluminum conductors in sizes No. 1/0 AWG and smaller. The proof of the effectiveness of his paper was demonstrated by the active audience participation in the discussion of the facts which he presented.

High Voltage Distribution in Mills

The second paper of the morning was "High Voltage Distribution and Unit Substations and Their Use in Textile Plants" by Ben C. Swaim, engineer, Biberstein, Bowles & Meacham, architects and engineers of Charlotte.

Mr. Swaim stated that he could have changed the name of this paper to "High Voltage Distribution Returns to Textile Plants," inasmuch as several in the audience could remember when 2,300-volt electric power was prevalent voltage used in textile plants, primarily because of the necessity of large motors of 50, 75, 100 horsepower or even larger motors spotted to take existing line shaft drive groups with 2,300 volts being the power supplied by the local power companies by means of straight feed-in service from a common distribution circuit without the power company having to furnish a substation for lower voltage. He suggested that the reason 2,300 volts was discarded in favor of lower voltage was because of the demand for smaller motors required for individual drives. Therefore 550 volts was chosen as the distribution voltage for textile plants although it was not a standard voltage in any other section of the country. Some authorities say 550 volts is used because some 2,300-volt motors could be reconnected for 550 volts, also some say that on account of utilizing the maximum capacity in the 600-volt insulation class. Mr. Swaim pointed out that large textile plants with widespread arrangement have used 2,300 volts, 4,160 volts, and some have even gone as high as 13,800 volts for plant distribution with the resultant performance of less voltage drop, consequently less power loss.

He had several slides showing the relative economics of power distribution at 550 volts in a large mill versus distribution at 2,300 volts, coming up with a saving of approximately 15 per cent in the installation of the high voltage system over the 550-volt system. He offered a comparison of transporting 12,000 horsepower for a large mill for a distance of 100 feet from the power company's substation. At 550 volts he estimated the cost to be about $25,000; at 4,160 volts, $9,000; and at 13,200 volts, $2,500.

He offered another item of savings in operating costs which just as a rough calculation appears that a saving of approximately $2,130 per year would be realized with the 4,160-volt installation, and approximately $2,200 per year on the 13,200-volt installation. The data given by Mr. Swaim in this paper represented one of the mill jobs which he designed and followed through to completion and operation and his paper was rated one of the top papers of the meeting.

Progress in Loom Designing

The third paper of the morning's session was presented by V. F. Sepavich, engineer, Crompton & Knowles Loom Works Co., Worcester, Mass., and entitled "The Application of Electrical Equipment to Looms and Other Textile Machines." He discussed the evolution of the loom from strictly a mechanical machine to one with mechanical refinements made possible by means of electric controls and drives. This was highlighted by means of slides showing the development of motor drive application since 1903, which had a flywheel, and he says they are still talking about flywheels. He brought out the improvements in loom motor enclosures and bearings. He said electric power has increased production by such scope that mechanical drives could not touch. Mr. Sepavich very effectively presented his paper with the use of a large number of slides showing various loom developments which he has made in the employment of electric control and drives. He pointed out the effectiveness of external wiring from the starter switch to the motor as well as from the stop-motion transformer to the warp stop system of the loom. His paper was also widely discussed in the audience participation and his ideas were roundly applauded.

Tractor-Trailer System Saves $25,000 Per Year

According to Mercury Mfg. Co., Chicago, Ill., installation of a Mercury tractor-trailer system at the Valleyfield, Quebec, plant of Montreal Cotton, Ltd., reduces material-handling costs 37 per cent despite an increase of 60 per cent in daily operating time. With the mill operating on one ten-hour shift, previous direct-labor and hand-trucking costs amounted to $40,000 yearly. The annual cost of the tractor-trailer system, operating on two eight-hour shifts, is only $14,500 a year—69 per cent of which represents labor expenditure.

Electric tractors, hauling trains of specially-designed trailers, transport the following materials between departments: roving bobbins; warp-spinning and filling bobbins; twister bobbins; spooler cheeses; binder cones and tubes; dye springs; section beams; loom beams; cloth in folds, rolls and bales; and waste materials.

Before revising the former materials handling system, a study of the labor and equipment involved in the flow of materials throughout the plant was made. This study revealed that substantial savings could be realized through plant and equipment modernization. Here's why:

(a) All trucking was being done manually. (b) The number of hand trucks needed for the heavy volume of traffic often caused congestion in the plant. (c) The distance covered by truckers amounted to over 65 miles per ten-hour day. (d) Shortage of trucks, boxes, baskets occurred frequently because they were used interchangeably between departments. (e) Methods and equipment in use caused frequent damage to goods. (f) No single authority existed over the general intra-mill transportation. (g) Each department had its own truckers who were sent where, when and as needed to deliver and pick up all items.

The modernization included: the installation of two electric tractors and 64 special trailers; and alterations to the plant to permit easy maneuverability of the tractor-trailer train.

To aid in developing the new handling scheme, flow diagrams were prepared showing production for each department, routings for each item transported, and also personnel involved in material handling. The proposed system was based on the use of one tractor on two levels—these levels being connected by a ramp—and another tractor for two other levels which were connected by elevators. The elevators were to be used as dispersing stations. One centrally-located elevator was chosen as a site for servicing the tractors.

Each department was allocated a number of trailers in accordance with its needs. These permanently-assigned trailers, marked to indicate departmental origin and destinations, were to be hauled between elevator dispersing stations. The elevators would then transfer the trailers between levels and leave them in appropriate parking areas for further hauling by the tractor assigned to that level.

A Mercury tractor hauls train of trailers containing cloth, bobbins and beams between departments of the Montreal Cotton, Ltd., mill in Valleyfield, Quebec. The first trailer in the train is design to accommodate loom beams loaded directly from the warper.

Because of the lack of uniformity between building levels in the mill, alterations were necessary to tailor the plant to tractor-trailer trains. One of the newer elevators was reinforced to allow inter-level transportation of the tractors. Throughout the plant, aisles were too narrow and space around elevator exits was limited. In some instances, flooring had to be reinforced, old doors widened, new doorways created.

Safety precautions were observed by: outlining travelways with yellow lines, painting doorway arches with contrasting stripes of brilliant paint and installing warning lights on pedestrian doors that open onto travel-ways. The elimination of narrow and winding aisles required the relocation of machinery and, in one instance, construction of a bridge to by-pass machinery.

The tractors chosen for prime-movers are standard units marketed by Mercury Mfg. Co., Chicago. However, the required trailers were individually designed to yield maximum effectiveness according to the special needs of this particular mill. Large box-type trailers with loads of spinning bobbins are electrically dumped at conditioning machines and are then reloaded with clean bobbins from Terrell bobbin strippers. A special trailer was designed to handle two loom beams loaded directly from the warper. Trailers with ramps capable of holding two box trucks containing twister bobbins are also in use.

Equipping and altering the plant plus installation of the tractor-trailer system, required an investment of $45,000. Considering the $25,000 yearly saving in reduced material-handling costs, the total initial outlay for plant modernization and modern handling equipment will be amortized in less than two years.

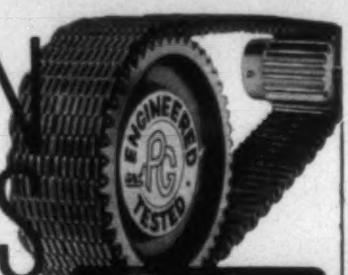
Importance Of Insulation Maintenance Cited

Insulation maintenance is a neglected factor in many plants and often leads to costly heat losses or operating inefficiencies. The Magnesia Insulation Manufacturers Association points out that the need for maintenance may result from normal wear and tear, from failure to repair or replace insulation damaged or removed during alterations, or from routine equipment maintenance work.

Most frequently, the need for insulation repair on pipe lines can be noticed around flanges and fittings which are opened for inspection or other purposes. Pipe insulation adjacent to chain hoists, doors or other moving objects may be damaged if not properly protected. Loose tie wires or bands and damaged canvas covering should be checked and repaired, the association points out. Small fittings insulated with cement are more likely to need periodic reinsulation than pipes and larger fittings having molded insulation.

Equipment is likely to show most need of insulation repair, the magnesia producers say, around manholes or other openings where the edges are subject to hard contact and abrasion. Vibrating or rotating equipment, when insulated, should be checked frequently to assure the soundness of the fastenings. Loose tie wires or sheared stud welds may allow the insulation to sag or become completely detached.

For those who prefer to do their own insulation maintenance, a 96-page manual describing and illustrating application and maintenance techniques can be obtained by writing the Magnesia Insulation Manufacturers Association, 1317 F Street, N.W., Washington 4, D. C.



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PERSONAL NEWS

J. Stuart Campbell, for the past six years representative in the Greensboro, N. C., area for the Du Pont nylon division, has resigned to join Madison (N. C.) Throwing Co. as director of sales.

Ray W. Ousley has joined the sales staff of Gastonia Roller, Flyer & Spindle Co., Gastonia, N. C., and at present is contacting textile mills in South Carolina. Prior to his appointment with Gastonia Roller, Flyer & Spindle Co., Mr. Ousley was with J. P. Stevens & Co., Inc., as head of the put-up department at Delta Finishing Plant, Cheraw, S. C. He also was for a number of years associated with Dan River Mills, Danville, Va., and Appalachian Mills, Knoxville, Tenn.

Dr. Nolan B. Sommer has been named supervisor of the new product development department, American Cyanamid Co., succeeding Dr. James R. Dudley who resigned to join Carwin Co., North Haven, Conn. Dr. Sommer joined American Cyanamid in 1944, shortly after receiving his Ph.D. from Indiana University. He served as research chemist at Cyanamid's Stamford, Conn., research laboratories from 1944 to 1947 when he was made market development manager for Jefferson Chemical Co., a firm jointly owned by Cyanamid and the Texas Co.

Harold H. Burrows has been appointed as sales manager of the industrial rubber goods sales division, Raybestos-Manhattan, Inc., Passaic, N. J. Mr. Burrows has had wide experience in the rubber industry over a period of many years. After serving for several years as assistant manager of the roll and tank departments, he became manager of those departments in 1942. He has many industrial friends, particularly in the paper, textile and chemical processing industries. . . . Charles P. McHugh has been appointed manager of the roll covering and tank lining production departments of Manhattan Rubber Division, Passaic.

Frank A. Brede has joined Graton & Knight Co. as chief engineer, transmission and development, in the research and development department in Worcester, Mass. Mr. Brede has been associated with the engineering and sales of mechanical power transmission equipment for many years and will contribute his knowledge of the solution of the many and varied problems in industry to the vast store of power transmission know-how gained in the company's more than 100 years service to industry.

James R. Duncan, formerly assistant treasurer of the Chicopee Mfg. Corp., textile manufacturing concern of New Brunswick, N. J., has been appointed controller of Park & Tilford Distillers Corp. Mr. Duncan was associated with the Chicopee concern for the past eight years.

Merle F. Schreurs has been named manager of the new coating, research and development laboratory at Industrial Ovens, Inc., Cleveland, Ohio. Mr. Schreurs formerly was project engineer for the vinyl dispersions division of the research and development laboratory of Textileather, Toledo, Ohio.

Wert Faulkner, manager of the Glasgow, Va., plant of James Lees & Sons, has been elected president of the Virginia State Chamber of Commerce for the coming year. Mr. Faulkner is a former president of the Virginia Manufacturers Association.

At a recent meeting of the board of directors of Wellington Sears Co., textile merchants, Joseph L. Lanier *(left)*, president of the West Point (Ga.) Mfg. Co., was elected chairman of the board. Willfred W. Lufkin, Jr. was elected executive vice-president and T. Scott Avary was elected vice-president in charge of finance. Mr. Lanier has been a member of the Wellington Sears board for some years and his election fills a vacancy in the office of chairman which has existed for some months. . . . Mr. Avary also has been elected vice-president in charge of finance of West Point. By his election to this newly-created office, Mr. Avary will have general supervision of all financial and accounting functions of the company. He will continue to make his headquarters in West Point. Mr. Avary was also elected treasurer of Columbus Mfg. Co., Dixie Mills, Inc., and Equinox Mill, subsidiaries of West Point, succeeding Elwyn G. Preston, Jr. Mr. Preston will continue as treasurer of West Point and will represent the company on financial matters in Boston and New York and continue to make his headquarters in Boston.

Marshall S. Delavan has been appointed controller, and Paul E. Casey appointed assistant secretary of Alexander Smith, Inc., Yonkers, N. Y. Mr. Delavan formerly was assistant controller of Burlington Mills Corp. of N. Y., and prior to that was controller of Textron, Inc. During the war he served with the Army Air Forces, completing his service as a financial analyst attached to the War Contracts Price Adjustment Board in Washington, D. C. Mr. Casey joined Alexander Smith, Inc., 11 years ago as an accountant, and for the past four years has been the company's chief tax accountant. Prior to joining Smith, he was in the treasurer's office of the Tri-Continental Corp., an investment trust company in New York.

Ernest C. Cox, Jr., has joined United States Testing Co., Hoboken, N. J., as general manager of the firm's fiber testing laboratories in Dallas, Tex., and Memphis, Tenn. . . . Ira J. Yokom, a University of Texas graduate, will be in direct charge of the Memphis laboratory, the firm announced. Both Mr. Cox and Mr. Yokom formerly were employed in cotton merchandising research at the University of Texas, Mr. Cox for five years and Mr. Yokom the past two years.

Recent supervisory changes announced by Bibb Mfg. Co., Macon, Ga., follow: N. J. Piper, formerly overseer of twisting at Osprey Mill, to be superintendent at Taylor Mill, succeeding Harold Gates, resigned. . . H. V. Johnson, formerly assistant overseer of twisting at Osprey Mill, to be overseer of twisting at Osprey, succeeding Mr. Piper. . . . J. E. Shaw, formerly assistant overseer of spinning at Osprey, to be assistant overseer of twisting at Osprey, succeeding Mr. Johnson. . . . B. C. Layfield, formerly third hand in spinning department of Payne Mill, to be assistant overseer of spinning at Osprey, succeeding Mr. Shaw.

E. A. Bentley has been appointed assistant to the president of Swift Mfg. Co., Columbus, Ga. Plant superintendent prior to his promotion, Mr. Bentley joined Swift Mfg. Co. in 1938 as overseer of yarn preparation.

James C. Self *(left)*, president and founder of Greenwood (S. C.) Mills, Inc., has been added to the South's Hall of Fame for the Living by *Dixie Business*, publication of Atlanta, Ga., which each year nominates 25 of the South's leaders for this honor. . . . Oscar Johnston, founder and first president of the National

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Cotton Council, also is among the 25 named for 1952. . . . Additional honors will be bestowed upon Mr. Self June 3, when, along with Walter S. Carpenter, chairman of the board of E. I. du Pont de Nemours & Co., he will be awarded an honorary degree at commencement exercises of the University of South Carolina.

John Reeves, one of the founders of Reeves Bros., Inc., will be honored June 2 at commencement exercises of Wofford College, Spartanburg, S. C., when he will be presented the honorary Doctor of Laws degree.

B. P. Albright, assistant vice-president of the USEO Division of Callaway Mills Co., LaGrange, Ga., has been elected president of the LaGrange Lions Club for 1952-53.

Major Robert E. Willet, for the past four years chief of the general testing laboratories at Philadelphia Quartermaster Depot, plans to return to civilian life the latter part of June and re-enter the textile industry in a private capacity. He will be succeeded as chief of the testing laboratories by Capt. John P. Dougherty. Prior to his entry into service Major Willet was a textile technologist at the National Bureau of Standards and a chemist at Union Bleachery, Greenville, S. C.

Harry N. Dean, who has been associated with the structural section of the engineering department of Libbey-Owens-Ford Glass Co., Toledo, Ohio, has been transferred to the glass technology section in the research department and will work on fiber glass projects. He was associated with Owens-Illinois Glass Co., and Glass Fibers, Inc., before joining L.O.F. in 1951.

Henry A. Rutherford, head of the textile chemistry and dyeing department at North Carolina State College, Raleigh, has been elected supreme pro-consul of Delta Kappa Phi, oldest textile fraternity in the United States. . . . A. Ward France, head of the wool and worsted department and director of the evening school of Philadelphia Textile Institute was named supreme consul of the fraternity.

Alexander F. Ix, president of Frank Ix & Sons, Inc., recently was re-elected president of the National Federation of Textiles. Re-named vice-presidents were John Fox, Fox-Wells & Co., Inc.; Andrew J. Sokol, J. P. Stevens & Co., Inc.; and Jacques

JUNIUS SMITH, vice-president and business manager of TEXTILE BULLETIN, is pictured with Mrs. Smith and the sailfish (between them) he caught recently off Acapulco, Mexico, "Isaac Walton" Smith reports that his prize weighed 82 pounds. Fortunately for him Mrs. Smith had no luck (the other sail being brought in by another member of the party), so he can always claim to be the better fisherman.

Weber, Bloomsburg Mills, Inc. New directors elected to serve for three years are William N. Chace of Greenwood Mills, Inc., and H. W. Hilgert of Dundee Mills, Inc.

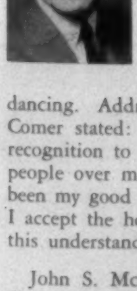
Hearne Swink, secretary and vice-president of Cannon Mills Co., Kannapolis, Concord, China Grove, Rockwell and Salisbury, N. C., was married April 26 in New York City to Mrs. Barnwell Elliott of Rye, N. Y.

William H. Ruffin of Durham, N. C., president of Erwin Mills, Inc., and Kenneth C. Towe, president and director of American Cyanamid Co., New York City, recently were named to honorary memberships in Omicrom Delta Kappa, men's national leadership fraternity, at Duke University, Durham.

J. A. Dunlap, foreman of the lower hydro plant of Pelzer (S. C.) Mills, last month completed 50 years of service with the plant. During the half century Mr. Dunlap did not miss an hour from his work because of illness and for a 25-year period, from 1923 to 1948, was not away from his job for any reason.

Roger Milliken, president of Deering, Milliken & Co., Inc., New York, and Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, were awarded honorary membership degrees by Phi Psi, national textile fraternity, at the fraternity's recent 49th annual convention at Clemson, S. C.

Emmett L. Battson has resigned as manager of Arkansas Cotton Mills, Morrillton, Ark., a position he has held since 1948, and has been succeeded by James T. Doughtie of Griffin, Ga., for the past six years assistant superintendent of Crompton Highlands Mills, Inc., at Griffin. . . . Ansel Swain of Conway, Ark., has been named personnel manager at Arkansas Cotton Mills succeeding Raymond Moore, who has resigned.



Donald Comer, chairman of the executive committee of Avondale Mills, Sylacauga, Ala., was honored April 30 when "Donald Comer Day" was observed in Sylacauga. Approximately 10,000 persons attended the festivities which included band concerts, a barbecue dinner and dancing. Addressing the gathering, Mr. Comer stated: "I feel that you are giving recognition to an accomplishment by many people over many years with whom it has been my good fortune to be associated, and I accept the honor you are doing me with this understanding."

John S. McGilly has joined the textile fibers department of Carbide & Carbon Chemicals Co. as a technical representative. Mr. McGilly, who was graduated with the degree of bechelor of textile engineering from Lowell (Mass.) Textile Institute, began his business career with Realsilk Hosiery Co. in 1940. In the Air Force from 1943 to 1945, he became a first lieutenant. Following World War II, he joined the Du Pont nylon division, leaving in August, 1951, to become assistant manager of the lingerie division of the Sapphire Corp., New York.

Thomas W. Jones has been appointed assistant superintendent of weave rooms at Mooresville (N. C.) Mills. A native of Georgia, Mr. Jones entered the textile business in 1931 and has been associated with a number of plants in the Carolinas.

Recently elected trustees of the Georgia Tech Alumni Foundation were Fuller E. Callaway, Jr., former president of Callaway Mills Co., LaGrange, Ga., and president of the Callaway Foundation of the same city; Julian T. Hightower, president of Thomaston (Ga.) Cotton Mills; and John P. Baum, vice-president of M. T. Stevens Southern, division of J. P. Stevens & Co., Milledgeville, Ga.

Dr. Robert P. Parker was named director of chemical research of the American Cyanamid Co., Calco Chemical Division, to succeed Dr. H. Z. Lecher following his retirement on April 1. Dr. Parker is a graduate of Williams College, class of 1926, and received his Ph.D. from Yale in 1933. He came to Calco as a student trainee and joined the research department in 1934. He

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became a group leader in 1938 and sectional director in the organic research section in 1944. During this period, his work was mainly in the field of dyes and pigments. Dr. Parker was appointed assistant to the director of research in 1946 and became assistant director of research of pharmaceutical section in 1947.

Walter H. Gosnell has assumed his new duties as general manager of manufacturing at Fairforest Co., Eagle & Phenix Division, Columbus, Ga., a subsidiary of Reeves Bros., Inc. Before going to Columbus, Mr. Gosnell was with the Reeves' Spartanburg, S. C., plant, Saxon Division.

George E. McClellan, director of E. I. du Pont de Nemours & Co.'s rayon manufacturing division, has been made director of the company's nylon manufacturing division succeeding Charles M. Switzer, who is retiring. . . . Simultaneously, the firm made known five other staff changes in its textile fibers department, including the appointment of W. Sam Carpenter, 3rd, who had been director of the acetate manufacturing division, to succeed Mr. McClellan as rayon manufacturing division director. William Scarborough, manager of the acetate production section, was appointed to succeed Mr. Carpenter as director. Thomas Taylor, manager of the Spruance rayon plant, Richmond, Va., was promoted to succeed Mr. Scarborough as manager of the acetate production section. Dr. Rollin F. Conaway, manager of the Yerkes rayon plant at Buffalo, N. Y., was transferred to the Spruance plant to succeed Mr. Taylor as manager there. Edward M. Cooper, Jr., manufacturing superintendent of the Old Hickory, Tenn., rayon plant, succeeds Dr. Conaway as manager of the Yerkes plant.

Frederick J. Barrows, who for the past three years has represented Universal Winding Co. in the New England area, has been transferred to the firm's Atlanta, Ga., sales office where he will assist Jesse W. Stribling in serving textile mills in the Southeastern states.

J. Russell Bonner, chief of the apparel branch of the Office of Price Stabilization, is scheduled to succeed Benjamin F. Roeder as chief of the O.P.S. textile branch. Mr. Roeder is resigning from that position soon. Mr. Bonner will continue as chief of the apparel branch. Mr. Roeder is a former vice-president of Virginia Woolen Co.

OBITUARIES

Charles L. Barnett, 78, of Charlotte, N. C., a former executive with Anchor Mills, Huntersville, N. C., died April 28 at a hospital in Charlotte. Surviving are his wife, two daughters, two sons, three brothers and three sisters.

Thomas L. Edwards, a superintendent of Piedmont Cotton Mills, East Point, Ga., died April 19. Surviving are his wife, a son and a daughter.

John M. Howarth, 86, retired assistant superintendent of the Lanett (Ala.) Division of West Point (Ga.) Mfg. Co., died recently at a hospital in Atlanta, Ga. Mr. Howarth served for 16 years as assistant superintendent of Slater Mills, Webster, Mass., before becoming assistant superintendent at Lanett in 1915.

W. R. Mauersberger, retired textile executive of Passaic, N. J., died April 21. Before his retirement in 1948 he had been general manager of Garfield Worsted Co. in the 1900s and superintendent for 48 years with Gera Mills of Passaic.

Charles J. Meagher, 56, retired textile executive of Shelby, N. C., died April 19 at his home in Shelby. His associations included Cleveland Cloth Mills, Shelby; Highland Park Mfg. Co. of Charlotte, N. C.; Decotah and Erlanger Mills of Lexington, N. C., and Margrace Mills of Kings Mountain, N. C. His wife and a daughter survive.

Rufus S. Scarboro, 71, a retired superintendent of carding and spinning at Dan River Mills, Danville, Va., died recently of a heart attack. He had been associated with Dan River for 35 years. Surviving are one daughter and eight sons.

Peter Van Vlaanderen, 78, founder in 1902 and former president of Van Vlaanderen Machine Co., Paterson, N. J., manufacturer of textile dyeing and finishing machinery, died April 21. Surviving are his widow, a daughter, two sons and two brothers. His sons, Cornelius H. and George, are, respectively, president and vice-president of the Van Vlaanderen firm.

C. Laurence Warwick, 62, executive secretary of the American Society for Testing Materials, and its administrative head since 1919, died suddenly April 23 of a heart attack. Mr. Warwick made many notable contributions to the field of standardization and research in materials and was recognized as an outstanding authority on materials. Surviving are his wife, a daughter and two sons, his mother and two brothers.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

GREENWOOD, S. C.—The new $6,800,000 plant being erected here by Greenwood Mills, Inc., will be called the Durst Plant in honor of William L. Durst, textile pioneer of Greenwood County and first president of Greenwood Cotton Mill. The one-story plant, which will be windowless and air conditioned, will contain complete facilities for spinning and weaving a variety of cotton fabrics of medium-size yarns.

BISHOPVILLE, S. C.—The employee training program at Bishopville Finishing Co. is progressing satisfactorily and the plant is expected to be in full-scale operation soon.

CHARLESTON, S. C.—The new $1,000,000 plant of United Piece Dye Works here is expected to begin operations soon. When operating at capacity the plant will dye and finish 60,000 yards of rayons and other synthetics a day.

NEWNAN, GA.—The plant occupied by Chicopee Mfg. Co. here has been leased to American Thread Co. which will establish a spinning mill in the 50,000 square foot building. The lease is effective July 1. American Thread Co. plans to utilize machines and equipment that it now has in the South for installation in its new spinning facility.

LAURENS, S. C.—Machinery is now being installed in the recently-completed plant of Woonsocket Worsted Co. here and operations at the spinning mill are expected to begin about June 1. About 120 workers will be employed initially.

FLORENCE, ARIZ. — The first modern power looms to be brought into the state have been acquired by the textile plant at Arizona State Prison. The looms were purchased from Chicopee Mfg. Co. at Cornelia, Ga. Warp preparation equipment also has been purchased from Southern Mill Supply Co., Athens, Ga. The mill is now equipped to manufacture all cloth used at the institution.

ROCKINGHAM, N. C. — The American Woolen Co. has announced plans to transfer operations of its plant at Dover, N. H., to a plant in the Rockingham area. Most of the equipment of the Dover plant will be sent to North Carolina.

ANDERSON, S. C.—J. P. Stevens & Co., Inc.'s Appleton Co. Division announced recently the immediate construction of a community building which will be an addition to the present Appleton gymnasium. The approximate cost of the new addition is $15,000. According to Dan M. Leister, general manager of Appleton Co., the addition will be used primarily for a meeting place for the Appleton Women's Club. Mr. Leister said that the new construction will be a one-story type, wood-frame building with asbestos siding and concrete flooring to match the present gymnasium. Dimensions were given as approximately 56 by 36 feet giving ample space for group meetings of 150 to 175 persons. The new addition will also include a fully equipped kitchen and facilities for serving dinners or suppers for Appleton community groups.

CHARLOTTE, N. C. — It has been announced that plans for the Southern headquarters to be erected in Charlotte for Celanese Corp. of America have been revised to add 50,000 square feet of floor space, increasing the cost of the structure from the originally planned $3,600,000 to $5,000,000.

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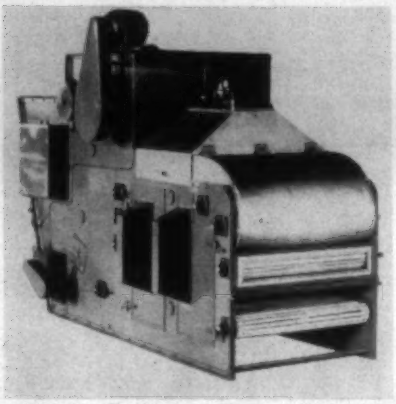
For the Textile Industry's Use

EQUIPMENT — SUPPLIES — SERVICES — LITERATURE

New Tinting Machine



Textile Equipment Corp., Greenville, S. C., subsidiary of W. D. Dodenhoff Co., Inc., producer of the Fiber Meter automatic blending system, has announced a new piece of equipment for effectively controlling the application of fugitive dyes on synthetic fibers. The Unitint machine, as it is called, receives the blended stock from the blending line and feeds a controlled amount to an all-stainless steel, enclosed tinting chamber. The rate of output, in pounds per hour, can be automatically regulated to the rate of the pickers being fed or to the rate of delivery of the blending line. The Unitint is particularly effective when used with the Fiber Meter automatic blending system, where the controlled flow of stock can be easily accomplished by timing the accurate weighings of blended stock to coincide exactly with the picker rate. Thus, when the picker is running, an exact, known quantity of stock is passing through the Unitint.

Since the amount of stock passing through is a known factor, the precise percentage of tint can be evenly applied by a positive displacement pump and spray nozzle. After the fibers have been tinted on the top conveyor belt, they move through a revolving agitating blade beater, in conjunction with a curved stainless steel plate, to distribute or blend the tint. In effect, this agitator blade action "blots" the more heavily tinted fibers against the lesser tinted ones to even the tint distribution. From the blade section, the stock is carried slowly rearward on an intermediate belt, and then dropped to the bottom belt which carries the fibers to a pipe or conveyor to the picker. In moving along these belts, the tint has further opportunity to disperse through the fibers and to dry out. A bank of infra-red drying lamps can be provided to speed up this drying action in the case of heavily tinted stocks.

The unit is compact and constructed of heavy steel plate and heavy gauge nickel bearing stainless steel. All shaft bearings are the sealed, self-aligning ball type. The enclosed tinting chamber is hinged as is the heavy curved plate for easy access in cleaning and changing tint colors. Large doors on both sides provide access to the drying belts.

Eight units of this type have been in actual production in a large Southern mill for over six months, and new models are now being delivered to other leading producers in New England and the Southern states. Results have been widely praised by users and observers alike for faithful reproduction of various color shades, reduction in the amount of tint used, evenness of colors, elimination of tags and soggy batches, and cleanliness over present methods, the company states.

The Unitint comes fully equipped with motor, belting, tint pump, and controls. It has an effective capacity up to 1,200 pounds per hour.

Waukesha Agent Named

William J. Moore, manufacturers' agent of Greenville, S. C., announces appointment of West Point (Ga.) Foundry & Machine Co. as agents for Waukesha (Wis.) Foundry Co. for the sale of the firm's pumps in the states of Alabama, Georgia and Tennessee.

Universal Uptwisters

Improved yarn quality, better bobbin build, simplified installation, increased production, lower costs, less maintenance and longer life are advantages promised by the new Unirail uptwisters announced by Universal Winding Co., Cranston, R. I.

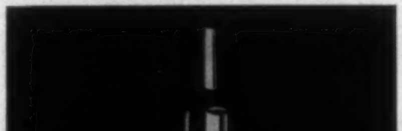
Many new design and construction features support the promised advantages of Unirail uptwisters. Improved yarn quality is achieved by straight threadline delivery, reduction of vibration, freedom from oil dispersion, reduced over-all tension and less yarn handling by operators. Better bobbin build results from improved traverse motion with adjustable ribbon breaker.

Simplified installation derives from factory pre-erection and run-in and shipment of standard machines in three sections. Increased production stems from higher spindle speeds and less operator handling time. Lower power cost is brought about primarily by the entirely new Uniflex spindle which is designed to cut down vibration, reduce bearing loads and permit safe speeds up to 16,000 r.p.m. under satisfactory conditions *(illustrated below.)*

Less maintenance results from annual lubrication of spindles, idlers, take-up shaft bearings and leakproof twist unit. Freedom from oil dispersion reduces lint accumulation and minimizes cleaning. Longer life is indicated by the virtual freedom from vibration effected by the new Uniflex spindle, and by the rugged spindle bedplate construction rather than conventional spindle rails.

Unirail uptwisters are offered in headless package and bobbin take-up models. The latter provides a bobbin or finger hanger option. Further data is provided in a comprehensive bulletin No. 501 which goes into full detail on all Unirail advantages and features.

More uptwisting production per square foot of floor space, lower power and maintenance costs and cleaner yarn are promised by Universal through the new Uniflex spindle recently developed for use on endless-belt-drive uptwisters.


A
C
FLEXIBLE LOWER BLADE
allows higher, safe speeds
SEALED LUBRICATION
at A and B — keeps machine and yarn clean
BEARINGS
C and D — reduce power consumption
B
D
E
HARDENED STEEL BALL

Key feature of the Uniflex spindle design is its slender, flexible lower blade

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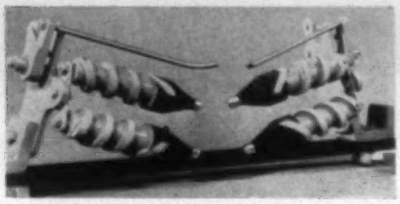
which allows off-center rotation of bobbins that are not perfectly balanced without building up excessive bearing loads. Size and location of bearings and unique sealed-in lubrication system that eliminatees free oil in the spindle step are also contributing factors to the advantages offered by the Uniflex spindle. All these advantages and features are discussed in detail in the new Uniflex spindle bulletin S-1.

New Cloth Guider



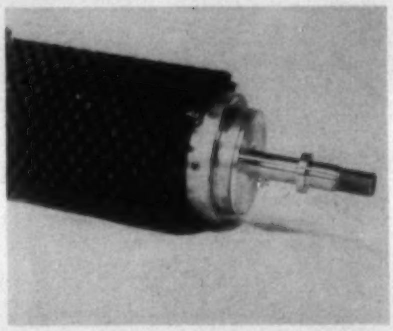
The Taker-Outer is the name of a new product of the Guider, Roll and Service Co., Da[illegible] Beach, Fla. Spiral rolls nine inches long—driven by the cloth, according to the manufacturer, accomplishes the taking out or turning back of the turned selvages. One spiral roll is in front and the other in back of the cloth. Taker-Outers can be attached to existing cloth guiders or can be supplied with brackets and used any place where cloth travels in open form. The Taker-Outer also has an attachment regularly supplied which tightens the selvage of the cloth before taking out the turned selvages. Ball and oil lite bearings are used throughout. Stainless steel operating parts can be supplied in place of other metals where required, according to the manufacturer.

Johnstone Joins Standard

Standard Mill Supply, Inc., Charlotte, N. C., and Pawtucket, R. I., announces that William S. Johnstone of Greenville, S. C., has joined the firm as sales representative in Georgia and South Carolina. Before joining Standard, Mr. Johnstone was Greenville representative for H & B American Machine Co. Standard also announces the promotion of J. Kenneth Sumner to sales manager at Charlotte, N. C.

The company has been named Southern representative for a number of additional lines, including the Pacific evenness tester manufactured by Anderson Machine Co., Needham Heights, Mass.; J. E. Windle Co., North Grafton, Mass., builder of cloth doubling, winding and measuring equipment, and Hall & Jansson Co., Worcester, Mass., cloth folders. The Standard firm also has been appointed representative for Hewitt-Robbins, Inc., Buffalo, N. Y., manufacturer of conveyors, conveyor belting, and neoprene padding for all types of machinery. In respect to the latter account, Standard Mill Supply will have available to its customers the engineering services of O. C. Williams, resident Hewitt-Robbins engineer of Charlotte.

Metal Cone Brush



To the established advantages of sagless aluminum or steel cores, lathe turned shafts, and other features that make for long, trouble-free use, this brush adds a new method of binding the tufted bristle on the metal core. It is made by Industrial Brush Co., Inc., Little Falls, N. J.

Tufts of bristle are arranged in slotted bands of stainless steel or copper. This tufted construction is particularly efficient for blanket washing, raising the nap of woolens and worsteds, and other purposes requiring the additional stiffness that tufts impart.

The closely wound metal bands and solvent resisting cement in which the tufts are set make this new type brush impervious to moisture, and at the same time allow water to flow freely between the tufts to get out any matter that penetrates the dense brush surface. The bristle is renewable when worn down.

General Dyestuff Circulars

General Dyestuff Corp., 435 Hudson Street, New York 14, N. Y., recently made available to the industry three new circulars: G-705, Celliton Fast Blue AF Extra Conc.; G-707, Celliton Fast Rubine 3BA-CF; and G-708, Indanthrene Blue CLN Paste and Indanthrene Blue CLNWP Powder.

Celliton Fast Blue AF Extra Conc. is a dispersed, direct-dyeing, anthraquinone-type dyestuff manufactured for dyeing fast-to-light blue shades on acetate with good resistance to atmospheric fading, or better resistance than that afforded by the commonly used fast-to-light acetate blues. It is also recommended for dyeing medium-blue shades on nylon with good fastness properties; it is not offered for printing.

Celliton Fast Rubine 3BA-CF is a straight dispersed type of azo dyestuff (Pr 239) offered for the direct dyeing of Bordeaux shades of superior light fastness on acetate; it is also suitable for dyeing nylon. This dyestuff is a non-dusting powder, which disperses well without any tendency to form a tar in either cold or hot water.

Indanthrene Blue CLN paste and CLN WP powder are dispersed paste and dispersed powder brands, respectively, of a new, straight, anthraquinone vat dyestuff, which has only recently been developed for dyeing fast blues on cotton and rayon by either pigment or pre-reduced methods. Dyeings of this blue are characterized especially by excellent resistance to chlorine bleaching (0.3 per cent active solution)

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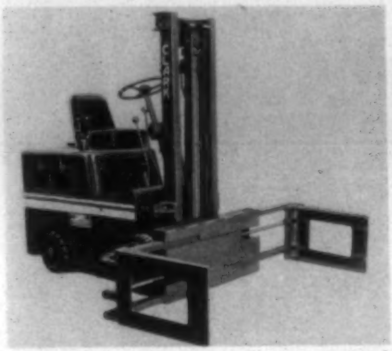
and to washing, along with good to excellent fastness to light. It is not offered for textile printing. Although both of these paste and powder brands are suitable for the same purposes and are identical in shade and working properties, they differ in strength as follows: 100 parts Indanthrene Blue CLN paste equals 50 parts Indanthrere Blue CLNWP powder.

Clark Cotton Clamp



The Clark cotton clamp, for use on Clark electric and gas-powered 2,000-pound fork-lift trucks in handling bales and similar items, has been re-designed to incorporate several improvements, and now is designated as the Wide-Spread clamp. The inside diameter of the clamping cylinder has been increased to 2¼ inches to permit clamp operation under lower proportionate working pressures, with a top limit of 1,000 pounds P.S.I. Increased efficiency and longer life of the mechanism are the advantages claimed. Maximum clamp-arm spread has been increased to 69 inches, but over-all width of the assembly remains at 40 inches.

The clamp arms, when used for bale handling, have lugs to prevent slippage. When pressure is applied, these gripper lugs press slightly into the bale at both the base and tip of each arm and assure a secure hold. A telescoping innerslide construction, employing rolled steel channels, and similar action to the upright members of Clark fork-lift trucks, is a new feature of the basic clamp-arm assembly. Its advantages are added strength and smoother action.

A number of other clamp-arm assemblies, all interchangeable and readily attached and detached, are available for use on Clark fork-lift trucks. The cotton clamp assembly is not interchangeable with other attachments. Full information will be supplied upon request to the Clark Equipment Co., Industrial Truck Division, Battle Creek, Mich.

Soda Ash Bulletin

Solvay Sales Division, Allied Chemical & Dye Corp., has announced a new expanded and revised edition of its Technical & Engineering Bulletin No. 5, "Soda Ash—Its Properties, Loading and Unloading, Handling and Storage." The announcement states that the new 64-page third edition contains both new material and revisions in addition to the charts and data that were included in the widely circulated previous editions. Readers in the United States and Canada can obtain copies of this bulletin without charge by addressing requests to

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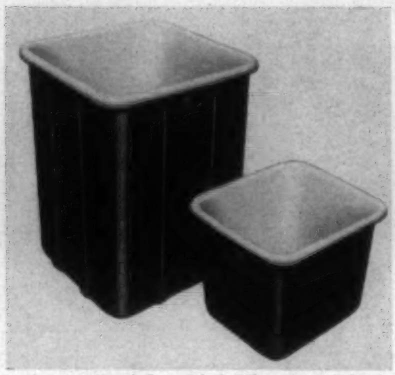
Solvay Sales Division, Allied Chemical & Dye Corp., Advertising & Sales Promotion Department, 40 Rector Street, New York 6, N. Y.

One-Piece Fiberglas Tanks



A new line of molded Fiberglas tanks in standard sizes is announced by the Laminex Corp., Fall River, Mass. Sturdy, corrosion-resistant and low cost, each tank is molded complete in one piece, embodying many special features. Laminex tanks are stated to be the only Fiberglas type tanks manufactured by a patented method using matched steel molds.

Unit molding does away with the need for rivets, bolts, nuts, screws or other fastening devices apt to snag materials. Uniform wall thickness is reinforced where necessary with vertical ribs and steel rods molded into the tank. All horizontal and vertical corners have a gently curved radius which makes the tanks easy to drain and clean. Smooth permanent white interior immediately shows stain that needs wiping away, and brightens the dip room.

Non-corrosive inside and out, the new Laminex tanks are non-conductive to static electricity and can withstand all chemicals commonly used, as well as temperatures above boiling point. Impact resistance is high, and construction is such that in event of accidental damage any tank can be quickly repaired on the spot by unskilled labor.

Extreme lightness of weight (tank weighs only about 60 pounds) and extraordinary ease of cleaning are two Laminex features not matched in tanks of conventional materials. These features decrease work loads and tend to prevent the smudging of goods, the firm claims.

Laminex tanks can be equipped with dam overflow for cold or hot water rinses. Capacity of standard sizes ranges from 50 to 550 gallons, and Laminex Corp. offers prompt service on custom molding in special sizes. Smallest standard model is a tub with top 17½-inch diameter by 13½-inch bottom by 14¾-inch height. All tanks of 300 gallon capacity or over have extra ply bottom.

Data and prices on standard tanks and on custom molding for all plant purposes are available from Laminex Corp. at 994 Jefferson Street, Fall River, Mass.

New Synthetic Detergent

Hartopon B, a truly new development in the field of synthetic detergents, is being marketed by the Hart Products Corp., 1440 Broadway, New York. This product is a pure white paste which displays excellent detergency and sudsing action. It is a modified fatty alcohol sulfate manufactured for the textile industry in high concentration and available at exceedingly low cost.

Hartopon B is recommended for use in virtually all cleaning operations such as the scouring of silk, cotton, rayon, acetate, wool, nylon, Orlon and Dacron. It is used with greater efficiency and economy in jig and box type scouring, in kier boiling, in soaping-off prints and for removal of sizing, oils and dirt. Hartopon B is stable in the presence of oxidizing and reducing agents; reduces the harshening effect of vigorous scouring procedures; and possessees outstanding protective action, dispersing power and detersive qualities, the firm claims.

Hartopon B is effective in very low concentrations, cleans thoroughly and rinses rapidly and completely in hard or soft water. Its low cost, high activity and wide range of uses make Hartopon B an unusually economical, all-purpose detergent for scouring operations.

Drew Reference Chart

Technical Products Division, E. F. Drew & Co., Inc., New York, N. Y., announces the availability of a new reference chart on fatty acids and their derivatives. This chart includes the composition and important physical properties of the 46 most widely used processing oils and fats. Approximately 17 by 11 inches, printed in two colors on durable stock, it shows at a glance such useful data as an oil's iodine number, saponification value, per cent of unsaponifiables and its normal fatty acid composition.

In addition, the chart provides the empirical formulae, molecular weights and acid numbers of 23 fatty acids in common use. For many of these fatty acids, the boiling and melting points in Centigrade are also specified. The chart is available by writing to the Technical Products Division of E. F. Drew & Co., Inc., 15 East 26th Street, New York 10, N. Y.

Graco Atlanta Office

The Gray Co., Inc., of Minneapolis, Minn., announces the opening on May 2 of its new regional office and warehouse at 1223 Spring Street, N. W., in Atlanta, Ga. Atlanta has become the center of the tremendous industrial and economic growth in the South, and Gray, realizing the importance of Atlanta to this development, has established the office there to render better service to the firm's many customers in this area.

The Gray Co. is internationally known as a manufacturer of a complete line of quality lubricating equipment, heavy material pumps and spray equipment sold under the name Graco.

The new office in Atlanta will serve the Southeastern part of the nation, including Georgia, Alabama, Florida, North Carolina, South Carolina, Mississippi, Virginia, and parts of Tennessee and Kentucky. The Graco office will also warehouse parts and equipment and will maintain a complete repair service department with factory-trained men in charge.

A special laboratory for testing the pumpability and sprayability of lubricants and industrial materials such as adhesives, sealers, coatings, compounds, and paints of all kinds is available to individual industries.

Industries in the Atlanta area will be interested in the display of production and maintenance equipment, said to be the finest equipment display, in the South, which shows the Graco line functionally installed and operating. Included are many fluid handling pumps for faster transfer or supply operations and a wide line of air-operated spray equipment capable of handling

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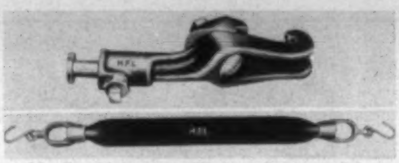
almost every known sprayable material. Other maintenance units are also on display.

Paddock Names Agent

J. C. Paddock Co. of Spartanburg, S. C., manufacturer of custom built textile trucks and other textile specialties, has appointed the W. S. Murphey Co. of Atlanta, Ga., as its exclusive representative in Georgia, Alabama, Louisiana and parts of Tennessee and Mississippi. The Murphey company has five representatives in the territory and maintains a branch office in Birmingham, Ala.

Livermore Loom Items



H. F. Livermore Corp., Boston, Mass., announces two new items for use in operation of the weave room—a newly-designed drive rod arm and an improved rubber (picker stick) floor spring.

Livermore explains that present arms are clamped to the sword by a stepped cast washer; the belt exerting the pressure against one side of the sword only. With all the leverage at the stud end, these arms frequently loosened on the sword, wearing the sword and making it difficult to keep the drive rod arms tight on the sword. The new H.F.L. drive rod arm *(top illustration)* has been designed so that when the belt is tightened a wedge shaped washer slides along the face of the arm until it contacts one edge of the sword and applies pressure between the hook on the arm and the hook on the washer, thus clamping opposite sides of the sword. This applies pressure to both sides of the sword and the arm cannot loosen, the firm states.

The firm believes that its new style rubber (picker stick) floor spring *(lower illustration)* will do away with the many disadvantages of the old-fashioned steel wire floor springs, Nos. 355, 403 and 1786. This new H.F.L. spring, the firm states, lasts considerably longer and will appeal to the overseer who has had trouble with down time caused by the breakage of steel wire type floor springs. The H.F.L. spring is made of special rubber that is not affected by oil, and is designed so that the rubber strip can easily be replaced if necessary. This item is cataloged by Livermore as RL-4799.

Testing Company Expands

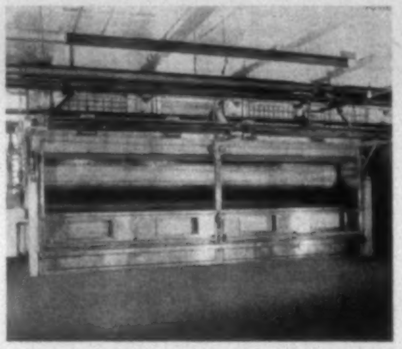
United States Testing Co., Hoboken, N. J., has added a new product testing service. The most recent addition, headed by psychologist Dr. Dean Foster, is the Psychometric Laboratory. This new division will broaden the scientific range of the 70-year-old testing company by psychological evaluation of a large variety of consumer goods and services. It has already been demonstrated that textiles as well as other natural and manufactured items can be analyzed and/or improved by appropriate psychometric techniques.

Dr. Foster, a graduate of Indiana University and Cornell, has had ten years experience in the design and administration of both consumer and trained panel product testing. He has developed special instruments for legibility measurements on labels and has advanced a classification system for odors. In several years at the quality research and control laboratories of Joseph E. Seagrams and Sons Co., in Louisville, Ky., he put dozens of manufactured products through a series of psychometric tests, resulting in improved products more uniformly produced.

Dr. Foster points out that the selection and training of panels require extensive preparation and rigid control of test conditions. Since the United States Testing Co. has eight branch laboratories in widely scattered cities in the country, controlled consumer testing is readily arranged on a nationwide basis. The analysis of products will be made primarily with the trained observer panels in Hoboken.

The nature of the psychometric approach to industrial problems is consistent with the other services of the United States Testing Co. For example, the study of the appearance or effectiveness of chlorophyll products, the synthesis of food flavors, or a study of label legibility have proved to be as precise and reproducible as the physical, chemical, engineering, radiological or other tests.

TLBT-X Dye Kettle



In response to growing production of and demand for rugs made of cotton and synthetic fibers or blends of these fibers, Riggs & Lombard has developed the TLBT-X dye kettle for dyeing them in the piece. Whereas it has been generally felt that dyeing of such fabrics was extremely difficult, R & L officials state that the TLBT-X dye kettle has been found admirably suited for piece dyeing synthetic fiber, as well as cotton rugs. Versatility of the TLBT-X dye kettle is expected to solve many problems connected with the dyeing of these fibers, and especially to open the door for mills which have hesitated to consider this type of rug production because of the dyeing problem.

Riggs & Lombard's TLBT-X dye kettle, an adaptation of the company's standard TLBT model, dyes cotton or synthetic or blended fiber rugs in either rope form or full

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open width. When it is used for dyeing in rope form, a stainless steel guide keeps the pieces separated. When the rugs are run in open width, a Riggs & Lombard Electri-Matic cloth guider keeps the fabric open width, free from wrinkles, and centered in the kettle. The center post that appears in the illustration is eliminated for open width dyeing, and the door is one piece, full length. For both types of dyeing, the reel is normally of large diameter and consists of a multi-grip type drum which insures against slippage.

The balance of the equipment used in the TLBT-X dye kettle is similar to that in Riggs & Lombard standard type piece dye kettles regularly used for woolens, worsteds and blends. A universal kettle suitable for an extremely wide range of fabrics, as to both type and weight, the Model TLBT from which Riggs & Lombard developed the new TLBT-X kettle eliminates tangles and tie-ups by unique design and by the multi-grip type reel. Goods balloon, move around, change folds readily to avert wrinkles, creases and dye streaks. Substantial savings in dye stuffs result from exceptional efficiency in operation, and saving of steam due to totally enclosed top is estimated at 25 to 30 per cent. Construction is all stainless steel.

Riggs & Lombard supply full information on all equipment needed for the proper finishing of the rug dyeing operation, including squeeze roll extractor and application of compositions used for anchoring the pile to the base material. Inquiries may be addressed to this publication or to Riggs & Lombard, Inc., Foot of Suffolk Street, Lowell, Mass.

Howe Hand Trucks

A 12-page condensed truck catalog (Form 508-B) has been just released by the Howe Scale Co., Rutland, Vt. Specifications and illustrations are shown for the complete line of the latest Howe two and four-wheel hand trucks, trailer trucks, baggage wagons, platform skids, dollies, lift jack systems, wheels, casters and molded-on rubber-tired wheels. This catalog also shows modern Howe construction features engineered for long, trouble-free and economical materials handling service. For further information, write for a copy of Form 508-B "Move Materials Faster, Easier With Howe Trucks," the Howe Scale Co., Rutland, Vt.

New Foxboro Offices

Adding two new branch offices and appointing additional personnel in the industrial South, the Foxboro (Mass.) Co. extends its network of sales and service facilities, particularly in the Southeastern area with its expanding textile industry. The new offices are located in Decatur, Ala., and Greenville, S. C., reflecting the increased use of modern process instrumentation by textile and other progressive industries of the region.

In charge of the new office at Greenville, S. C., is W. W. Barron, a veteran of more than 25 years' service with Foxboro, who enjoys a wide acquaintance among Southern industrialists through his many years in charge of the Atlanta territory. Address of the new branch is Room 1408, South Carolina Bank Building, Greenville, S. C.

Well qualified for his duties in charge of the Decatur, Ala., branch is C. A. Mohler, industrial engineer with extensive experience in the application of measurement and control of industrial processes. The Decatur Office is at 113 Lee Street.

These two branch offices bring the Foxboro total in this region to six, the others being located at Atlanta, Ga.; Birmingham, Ala.; Jacksonville, Fla.; and Charlotte, N. C.

Atlanta is now in charge of E. W. Pendergast who moves up to branch manager, succeeding W. W. Barron. Added to the Atlanta staff is F. H. Leathers who returns to his familiar surroundings after completing a tour of duty in the U. S. Marine Corps. Birmingham has added a new manager, L. B. Perry, working with the branch manager, J. M. Waters. The Jacksonville office, which also serves the textile industry, is now under the direction of R. M. Schneble, assisted by J. L. Pierce.

The Charlotte office, under the direction of S. A. Alexander, announces the appointment of H. A. Ruddock as sales engineer. Mr. Alexander, with over 30 years of progressive experience in the textile industry and Mr. Ruddock, whose diversified fields include the chemical industries, offers a well-rounded service to mill owners in their territory.

All of the Southeastern area comes under the supervision of A. H. Shafer, assistant division manager, Eastern sales division, whose headquarters are at Pittsburgh, where the Foxboro Co. has a branch factory and warehouse.

Odorless Paints

Completely odorless paints in every interior finish and in a full selection of colors are the latest development in the decorating field and should prove to be a boon to establishments where the presence of obnoxious paint odors is disturbing to those who occupy or visit the premises as well as harmful to merchandise.

The new full-line of odorless interior oil-base paints is now being manufactured and sold by the Keystone Paint & Varnish Corp., of Brooklyn, N. Y., where continued labroatory research has resulted in the successful development of the odorless product in gloss, semi-gloss, flat, enamel, floor paint and varnish.

Every interior surface may now be painted while people are in the same room, if that is feasible. If space limitations or other considerations make this impractical, it is possible to use the room immediately after painting, or within the few hours necessary for the surface to dry, without any trace of paint odor.

Prufcoat Catalog

A new general catalog covering the entire line of Prufcoat protective coatings has been made available for general distribution by the manufacturer, Prufcoat Laboratories, Inc., Cambridge, Mass. Subjects of wide interest in the cataiog include a list of chemical agents against which Prufcoat has been found effective, case history studies of five different types of applications in as many different industries, and a three-point analysis of the advantages of maintenance painting done the Prufcoat way.

The entire back page of the catalog is devoted to a listing and brief description of the physical and protective qualities of all eight Prufcoat products. With this handy guide, it is a simple matter to determine the specific sealer, primer and finish material required for any painting problem. The appropriate technical bulletin numbers are included with each product description so that the reader may easily secure more detailed information.

A copy of the new Prufcoat general catalog may be secured by writing G. Russell Hersam, General Sales Manager, Prufcoat Laboratories, Inc., 50 East 42nd Street, New York 17, N. Y.

Tropical Roof Coolerant

Tropical Paint and Oil Co., Cleveland, Ohio, manufacturer of heavy-duty maintenance paints, reports that Tropical's roof coolerant, brushed or sprayed by unskilled labor immediately reduces below-roof temperatures to the comfort zone by deflecting up to 75 per cent of the sun's radiant heat.

Tropical roof coolerant consists of large flakes of metallic aluminum applied with a special liquid bond, creating a complete, seamless, silver blanket which throws back the sun's heat. While conventional aluminum paints quickly stain and discolor on bituminous roof surfaces, Tropical roof coolerant stays bright. Tests show that when it is 96 degrees in the sun, temperature within the roof structure will build up to 140 degrees, with a below-roof working zone temperature of 116 degrees. The same day that Tropical roof coolerant is applied users have found as much as 26 degrees improvement in both roof and below-roof temperatures.

Maintenance managers report an added "bonus" with roof coolerant. Because the seamless, silver blanket deflects up to 75 per cent of the sun's radiant heat, it prevents rapid drying out of the roof, preventing cracking and leaking that results from a brittle, inflexible roof. Roof coolerant helps retain the flexibility needed for expansion and contraction of sudden temperature changes, prolongs roof life.

Floor Maintenance Brochure

An informative brochure about floors and their maintenance, "Floors Without Flaws," is announced by A. C. Horn Co., Inc., Long Island City, N. Y. This 12-page practical guide for economical and efficient care of floors in textile plants and other buildings covers the conditioning, repairing and maintenance methods for the widest variety of floor materials—concrete, asphalt tile, cork, linoleum, magnesite, terrazzo and wood. A copy of the brochure will be mailed free to those interested.

Gardner Cotton Colorimeter

The Gardner cotton colorimeter is described in a new leaflet available from the Henry A. Gardner Laboratory, Bethesda, Md. According to the leaflet, the Gardner cotton colorimeter aids cotton classers in eliminating tedious and detailed visual determinations and prevents costly rejections and acceptances. Three simple steps are outlined for its use: (1) reach for cotton and fluff it for inserition under weight; (2) insert fluffed cotton sample under weight; (3) step on foot switch and take photoelectric reading from large visible scale.

Hydrocide S.X.

L. Sonneborn Sons, Inc., currently is boosting its Hydrocide S.X., exclusive silicone which it claims will make all types of above-grade porous masonry water repellent immediately after drying. One application stops driving rains, the firm claims. It is invisible, will not discolor and will not wear away, the company states. Detailed information and literature may be obtained by writing Department P-2, Building Products Division, L. Sonneborn Sons, Inc., 80-8th Avenue, New York 11, N. Y.

Maintenance Booklet

A 24-page booklet describing a complete maintenance service for electrical apparatus can be obtained from the Westinghouse Electric Corp. The booklet presents a sound maintenance program based on the use of genuine renewal parts, repair service plants, and engineering and field service. Dozens of photographs show the special skill, testing devices, and repair equipment which are available to customers through strategically located repair plants. Many improved design renewal parts are illustrated to emphasize the importance of obtaining genuine renewal parts. Motor exchange service, periodic inspection service, and "on the spot" repairs by field engineers are also described. For a copy of this booklet, B-4766, write Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Pa.

Warner Demonstration Unit

A new "desk-top" demonstration unit for electric brakes and clutches—the first of its kind in the industry—has been introduced by Warner Electric Brake & Clutch Co., Beloit, Wis., according to Steven P. J. Wood, executive vice-president. The demonstrator, about the same size as an automobile battery, reproduces in mainiature the exact action of electric brakes and clutches for industrial machinery of all types.

Among the clutch and brake applications demonstrated by the push-button unit are: (1) control range, (2) stop and start speeds, (3) torque range, and (4) simplicity of maintenance.

Reliance Bulletin

An electronic motor-drive accessory that provides timed-rate acceleration and deceleration is described and illustrated in a new, two-page bulletin issued by the Reliance Electric & Engineering Co., Cleveland, Ohio. The bulletin explains the four specialized functions of VSC and shows it in action. Functions of this electronic control are: (1) timed-rate acceleration and deceleration and speed-changing, (2) pre-set speed selection, (3) automatic speed-changing, and (4) improved speed regulation for adjustable-voltage drives. The VSC is especially designed to operate in conjunction with the Reliance V*S adjustable-speed drive. For copies of this bulletin, write to the Reliance Electric & Engineering Co., 1111 Ivanhoe Road, Cleveland, O., and ask for Bulletin K-2025.

Consolidate Offices

Universal Winding Co., Providence, R. I., has consolidated its Charlotte, N. C., winding and twisting division offices at 1005 W. Morehead Street in Charlotte. The Charlotte branch is staffed by Frederick Sails, senior sales engineer, and Harris H. Bucklin, Dudley M. Dunlop and F. P. Barrie, sales engineers, and four service engineers.

A new 20-page comprehensive catalog of Sterling Electric power drives is now available, announces Allen A. Adams of Sterling Electric Motors, Inc., Los Angeles. This well-illustrated catalog contains complete descriptive information on variable speed drives, geared motors and constant normal speed motors in drip-proof, splash-proof, totally enclosed and pipe ventilated designs. Available on request from any one of the more than 400 Sterling sales offices.

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Wool Manufacturers Elect Ames Stevens

Ames Stevens of Ames Worsted Co., Lowell, Mass., was elected president of the National Association of Wool Manufacturers at the association's 78th annual meeting May 8 in New York City. Mr. Stevens succeeds the late Arthur Besse, who held the post as paid president for 18 years. Elected as vice-presidents of the association were: Lewis A. Hird, Samuel Hird & Sons, Inc., Garfield, N. J.; Arthur O. Wellman, Nichols & Co., Inc., Boston; James F. Dewey, A. G. Dewey, Quechee, Vt.; Ralph K. Hubbard, Packard Mills, Inc., Webster, Mass., and Francis W. White, American Woolen Co. Walter Humphreys of Boston was renamed secretary-treasurer.

Mr. Stevens reported that the outlook in the woolen and worsted industry has improved in recent weeks and that "this is especially true when a comparison is made with the last half of 1951."

"Indications of the brighter outlook are the firming wool prices in the British Dominions, which, in turn, have resulted in firming prices in this country of both wool and wool tops during the last three or four weeks," Mr. Stevens said.

"There is evidence that the inventory situation in this country has improved. An indication is the substantial business which is being done on worsted knitting yarns for future delivery."

Dr. Marcus Nadler, professor of economics at New York University, speaking at a meeting of the collateral group of the association, said the textile industry would see an improvement in business even though the buyers' market will continue to operate indefinitely. He warned, however, that the days of high-cost producers in the industry were numbered and that the impact of new fibers must not be underestimated.

"The only great uncertainty that still remains is how the revolution in the fiber industry will work itself out, what the long-range effects will be and how it will affect the price of wool and the level of wool consumption," Dr. Nadler declared.

Dawson Discusses European Textile Industry

Recently returned from Europe where he served as textile consultant for the Mutual Security Agency, C. C. Dawson of Cramerton, N. C., executive secretary of the Southern Combed Yarn Spinners Association, in an address before the Kiwanis Club of Gastonia, N. C., told that group that the American textile industry must produce "bountifully and efficiently" if it is to hold its world markets. Admitting that textiles are dull all over the world, Mr. Dawson added, however, that he believed the industry would pick up momentum before the last quarter of this year.

Mr. Dawson offered these statistics on the labor market in England and France. An English textile worker, putting in a 45-hour week, is paid about $17. A French worker, on a 48-hour week, makes about $25. Lowest wages were found in Holland, where a skilled textile employee makes only 30 to 40 cents an hour.

Mr. Dawson, as the result of trips to Denmark and Holland, was able to diagnose the reason for poor production in textiles in these countries. Their production is low, he said, because they try to carry out too many operations under one roof. For instance, a textile plant in Holland would do its own spinning, weaving, dyeing, bleaching, and finishing. This was a burdensome job, getting everything done in the same plant. He advised that management call in more engineers to set up basic operations in each plant, just as the mills do in the United States.

In Denmark, Mr. Dawson found that only 110,000 spindles are being operated, and only 5,000 looms. Production is almost entirely for home consumption. The Danish mills produce mostly carded yarn and carded yarn products. The mill that weaves also finishes in the same plant. Holland has about 1,250,000 spindles and 45,000 looms. Also, the mills in the Netherlands produce principally for home consumption. Some mill owners in Holland complained of the quality of cotton they are getting from the United States, he said.

Wheeler Heads Ga. Quality Control Group

Jim Wheeler of Canton (Ga.) Cotton Mills recently was elected chairman of the Georgia Section, American Society for Quality Control. Mr. Wheeler succeeds J. Ellison Neal of U. S. Rubber Co., Atlanta, Ga. Miss Mary Jo Wesson, research department, West Point Mfg. Co., Shawmut, Ala., was elected vice-chairman. J. B. Denmark, Pepperell Mfg. Co., Lindale, Ga., was named secretary-treasurer and John Reynolds, Celanese Corp. of America, Rome, Ga., was named national representative. The new officers will take over in June.

I.T.T. Holds Annual Membership Meeting

Ninety-six mill members and guests attended the eighth annual membership meeting of the Institute of Textile Technology held April 30 at Charlottesville, Va. The meeting was featured by an analysis of inter-industry research called the "Seventeen Mill Tests," with emphasis upon the relation of processing conditions to yarn and fabric properties. The tests were sponsored by the National Cotton Council and the American Cotton Manufacturers Institute, while the analysis of data was made by the institute research staff.

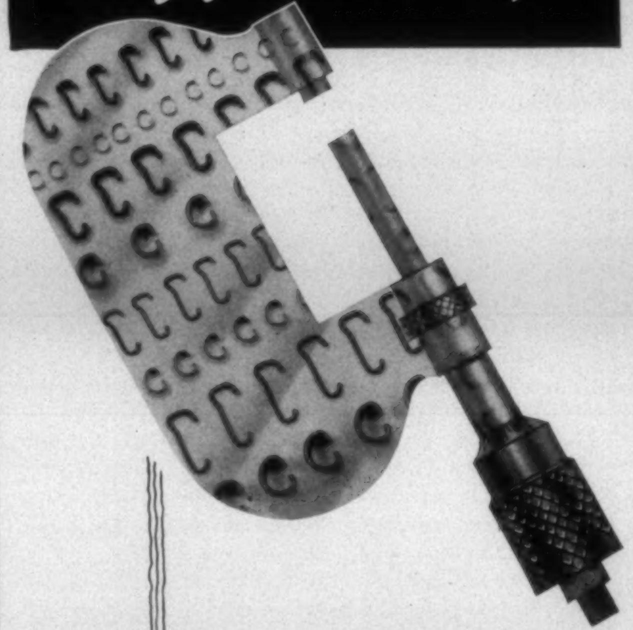
Roger Milliken, chairman of the board of trustees, summarized the objectives of the institute research program as "closing in on the unknown quantities in textile manufacture so that new ways may be found to improve quality and reduce costs."

"The institute is helping its members work with existing machinery to get the most out of it," Mr. Milliken said, "and one of the outstanding achievements has been the uniformity analyzer, which, along with the imperfection counter and other electronic instruments, give the industry tools of greatest quality advantage."

M. Earl Heard, vice-president in charge of research at West Point (Ga.) Mfg. Co., described the procedure used by the A.C.M.I. and the National Cotton Council in conducting the 17 mill tests and pointed out that it was the most elaborate inter-industry test ever conducted. The principal objective of the N.C.C. test report, Mr. Heard said, was to show the effect of various ginning conditions on yarn and fabric so that the best methods of ginning could be determined.

J. E. Dougherty, head of the institute's textile engineering division, showed the difference between the N.C.C. report and that made by I.T.T. The latter was designed to show the effects of mill processing techniques on yarn and fabric quality. Dr. W. H. Martin of the institute discussed

They Measure Up!



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the "Correlation Between Breaking Strength and Per Cent Non-uniformity of Yarns and Fabric With Mill Processing Conditions," while Dr. L. H. Hance described the "Correlation Between Neps in Card Web and Imperfections in Yarns with Mill Processing Conditions."

Walter Regnery, president of Joanna (S. C.) Cotton Mills and chairman of the institute's technical advisory committee, complimented the staff upon the thoroughness of the analysis, "the data of which will be a subject of intense study for many years to come," Mr. Regnery added. Further reports were made by Leo Hubbard and T. L. W. Bailey, Jr., respectively, on "Elimination of Tar Spots from Cotton Fabric" and "Member Service Performance During the Quarter." Mr. Milliken briefly reviewed the institute's development of the uniformity analyzer, the removal of tar spots, and the translation of the 17 mill test data into terms usable by the member mills.

A board of trustees meeting followed the membership meeting. Newly-elected trustees are Fred L. Smyre, Jr., president, A. M. Smyre Mfg. Co., and S. H. Harris, vice-president of Standard-Coosa-Thatcher Co. A new member of the technical advisory committee is Aubrey Hobbs, director of development, quality controls and standards at Standard-Coosa-Thatcher.

New Picking And Shuttle-Control Motions

Trautvetter Loom Works of 262 Totowa Avenue, Paterson, N.J., has announced the development of new picking and shuttle-control motions for broadcloth looms which the company claims will provide up to 50 per cent higher production.

These new picking and shuttle control motions use no cams and rollers, but are self-powered by a crank arm on each side of loom for each picker stick. The motions are driven from the camshaft. Each crank arm drives a lever mechanism with an upward and downward movement. The downward movement pushes the picker stick back in its loaded position and locks with a catch. This catch has been designed to lock picker stick when it is loaded, in the right place in shuttle box for the automatically refilling of a full quill pushing the empty quill down and out of shuttle box. It is then ready for a release at the right time. When this same lever mechanism is on its upward movement this catch is released. A long coil spring does the work which will slide the shuttle out of the box with exactly the same positive speed to every pick made.

A new device has been developed using a pivot rod. When it is up in place behind shuttle brake runway the shuttle enters and travels along this shuttle brake until stopped. When shuttle is ready to make next pick, pivot rod is drawn down out of the way to leave shuttle fly out freely. When shuttle has entered shuttle box it is locked and one cannot push it out with both hands. When this lock is released one can push it out with one finger.

Trautvetter is now demonstrating in its works a 45-inch light loom frame for broad cloth with all the new developments. The company invites manufacturers interested to call and see these new smooth-running improvements.

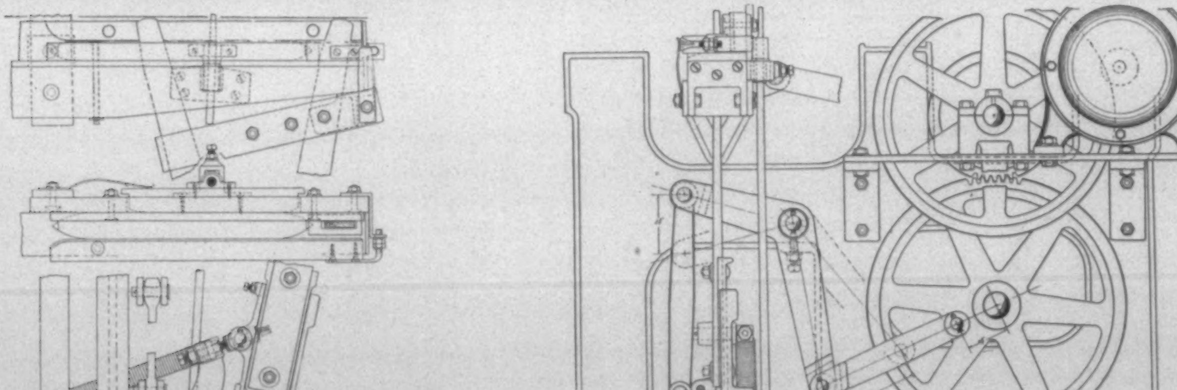
Public Relations Committee Advisory Council

Appointment of a special engineering advisory council to the textile committee on public relations was announced recently by Charles A. Cannon of Kannapolis, N. C., president of the Cannon Mills Co. and chairman of the committee.

The purpose of the council is to help obtain factual information of public interest on the industry. Composed of outstanding men in the textile engineering, research and accounting fields, it will function as a group in making available to the committee the individual talents and resources of its members as a contribution to the textile industry's program of public information, Mr. Cannon said.

S. B. Lincoln of Lockwood Greene Engineers, Inc., will be chairman of the council. Members from the Carolinas will be A. D. Asbury of J. E. Sirrine Co., Greenville, S. C.; John A. McPherson, Sr., the McPherson Co., Greenville; and Walter Simister, Jr., the Ralph E. Loper Co., Greenville.

Others on the council are Dr. Walter J. Hamburger, Fabric Research Laboratories, Inc., Boston, Mass.; Dr. Milton Harris, Harris Research Laboratories, Washington, D. C.; Nathaniel M. Mitchell, Barnes Textile Associates, Inc.,



Trautvetter picking and shuttle-control motions; front view *at left*, side view *at right*.

Boston; Carl J. Shannon, Robert & Co. Associates, Atlanta, Ga.; D. Reid Weedon, Jr., Arthur D. Little, Inc., Cambridge, Mass.; and Herbert L. Werner, Werner Textile Consultants, New York.

Wool Bureau Reports On Research Activities

The Wool Bureau, Inc., May 8 released the third issue of its annual summary of wool research problems and activities, "Current Research and Development," prepared by Giles E. Hopkins, technical director. The first edition, issued in 1950 as "Suggested Research and Development Studies for the Woolen and Worsted Industry," included 16 major classifications of research designed to be of direct assistance in solving many current manufacturing problems. The latest edition shows that active work is now underway in most of the areas then suggested.

Because comment from the industry reflects considerable interest in the location of all forms of wool research, the 1952 edition amplifies the section devoted to programs on wool throughout the world. In recognition of this change, the new edition has been given the title "Current Research and Development." Active research on the suggested projects is outlined and general wool research on additional subjects is mentioned under 11 classifications including genetics, sheep management, preparation for market, chemical and physical structure of wool, fabric scouring, dyeing, mothproofing, cleaning, shrinkproofing, testing methods and standards, and testing instruments.

Research programs in the United States, Australia, England, the Netherlands, Union of South Africa, and Sweden are included and lists of the major wool laboratories, their addresses and principal officers are provided. Copies of the publication are being distributed to the wool textile industry and the press, and are available upon request to the Wool Bureau, Inc., 16 West 46th Street, New York 36, N. Y.

International Standards To Be Discussed

World-wide standards for test methods and terminology in the field of textiles will be discussed by international standardization experts from 11 countries meeting in New York June 13, 14 and 16. The meetings will be held at Columbia University in conjunction with the second triennial general assembly of the 33-nation International Organization for Standardization (I.S.O.)

The American Standards Association, U. S. member of I.S.O., will be host at the two weeks of I.S.O. sessions in June. A.S.A. is the secretariat of the two technical sub-

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committees that are meeting—those on yarn testing and shrinkage in laundering. Other national standards bodies participating in the work of the two subcommittees are those of Belgium, Czechoslovakia, France, Germany, India, Netherlands, Sweden, Switzerland, the United Kingdom and the U.S.S.R.

Among the American organizations expected to have representation in the American delegation to the June meetings are the American Cotton Manufacturers Institute, American Association of Textile Chemists and Colorists, American Society for Testing Materials, American Association of Textile Technologists, National Institute of Cleaning and Dyeing, National Council of Textile School Deans, Rayon Yarn Producers Group, and several military and governmental agencies, including the National Bureau of Standards.

W. D. Appel, chairman of A.S.A. Committee L23, U. S. committee for I.S.O./T.C. 38—Textiles, has stated that American interest in international textile standardization work is high and participation is unusually heavy. "Textile people," he said, "have come to realize the need for international standardization work in the textile field through first-hand experience. In international trade, neither you nor your customer knows what you're selling unless you have a common yardstick."

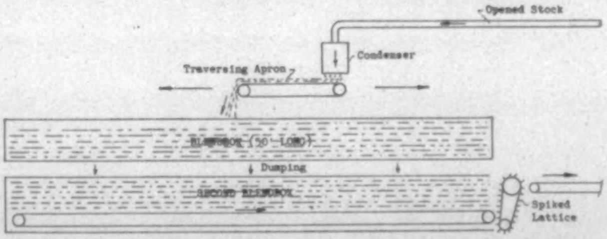
I.S.O. Technical Committee 38, Textiles, of which the yarn testing and shrinkage subcommittee are a part, was organized to co-ordinate and unify the national textile standards of I.S.O. member-bodies in order to provide a common understanding among producers, manufacturers, converters, distributors, and consumer. It is concerned with fabricated textiles of all kinds including fibers, yarns, threads, cords and fabrics, and with agents, conditions and auxiliary products required for processing and testing textiles.

The committee held its first meeting at Buxton, England, in 1948. At its second meeting in Bournmouth, England, last Summer, attended by 100 delegates including 15 Americans, an important international recommendation on textiles was formally adopted. Twenty-one nations participating in the work of the committee agreed on common terminology to replace the numerous descriptions then in use for the direction of twist in textile yarns. The letters "S" and "Z" are now internationally understood and accepted technical terms for indicating twist direction.

The British Standards Institution, which holds the secretariat for Technical Committee 38, has announced that the committee's seven subcommittees are making good progress on tests for tensile strength of fabrics, shrinkage, measurement of cloth, terms and definitions, moisture in textiles, fiber testing, yarn testing, color fastness testing and other standardization projects. I.S.O. draft proposals on these projects will eventually be submitted to the I.S.O. membership for approval as I.S.O. recommendations.

Werner Reports New Swiss Blending System

A new method and machine adaptable to blending natural and synthetic fibers, which will be of special interest to the American textile industry, was one of the highlights of the Swiss Industries Fair in Basle, in the opinion of Herbert L. Werner of Werner Textile Consultants. The new system has been developed by J. J. Rieter & Co., Ltd., Winterthur, Switzerland. Because of the long-range implications inherent in this method, Mr. Werner also visited the Rieter company's headquarters and a number of mills where this system has been installed. According to his report, the system appears to be working well and, therefore, should have particular interest to textile manufacturers.



New blending system for cotton and synthetics deeloped by Joh. Jacob Rieter & Co., Ltd., of Winterthur, Switzerland.

This new special blending system delivers fibers through a condenser and a traversing apron into a long blendbox, which in turn dumps them periodically into a second blendbox. From the latter, the fibers are taken by means of a spiked lattice. It is practically an "automatic sandwich machine" and so far handles fibers up to four inches.

Two other developments which Mr. Werner considered of importance to the American textile industry were: Hispano Suiza's interesting spinning frame featuring a new spindle drive. This arrangement is somewhat similar to the drive on the Perfect machine made in Germany and should be of interest to spinners and spinning frame manufacturers. This special direct-driven spindle costs only $7.50 per spindle in Europe. The price includes the drive and the ball bearing spindle. However, some users claim that spindles cannot be run over 8,000 r.p.m. The second noteworthy exhibit was the constant card, originating in Barcelona, Spain. It is an attachment that prevents clogging in carding.

Several important advances in European textile tech-

GEORGE BALDANZI

Pictured *at left* is George Baldanzi, who this month has set himself up as the "new messiah" of Southern textile workers. George has departed from the C.I.O. Textile Workers Union of America to become an organizer for the United Textile Workers of America, A.F.L.

nology and textile machinery of interest to American textile mills were on display at the International Trade Fair in Milan, Italy, Mr. Werner reported. Here are the highlights of Mr. Werner's report: "Something radically new and therefore of particular interest to the American textile industry is the new cotton card developed by Fratelli Bettoni of Bergamo, Italy. The feeding of the lap and the delivery of the sliver are both in front of the card. This constitutes a novel approach to card design never attempted before, and would tend to facilitate supervision of carding machines. There are 244 flats practically all around the card, which has no grip bars. The flat strips are taken off in the back and delivered into the box through a pneumatic system. This also is a new feature. It is worthy of note that there are a great number of stop motions and signals. Also on display was the European version of the Abbot winder, built by S.A.C.M. of Mulhouse, France.

"Among spinning frames for cotton and worsted, models of Carniti, San Andrea and Stellite were shown. All of these frames feature some type of pendulum type drawing device. One of the worsted frames attracted particular attention because of a new device which permits drafting twisted and untwisted roving. The drafting systems shown are either four-roll Roth or Casablanca. Italian manufacturers claim that drafts of between 30 and 50 can be obtained. All exhibitors show frames with some type of ball-bearing clip bobbin holders. Also on display was an interesting gadget made by Casablanca. This is a movable cleaner for the top apron that moves by itself from one end of the frame to the other, reverses itself and moves back.

"The question of whether European looms can be successfully used by American mills would require special study. The French Fayolle-Anset circular loom has undergone new improvements. Its high production of practically 750 picks a minute, compared to 200 picks on a 40-inch loom, is certainly impressive. The Saurer loom is the same as the model shown at the Atlantic City exposition in 1951. It is reported that 500 of these looms have been sold to a Canadian mill. Of particular interest was the Belgian Picanol loom which has a very practical, new pick-gear exchange system. No wrenches or other tools are required to change gears.

"Czechoslovakia was represented with its Kovo loom, built by Skoda. Although this is a sturdily built and fast machine, it has no new or better performance features to recommend it.

"An inexpensive, nicely constructed loom has been put on the market by S. A. Fonderie Officine Di Gorizia. This loom has an interesting built-in attachment which permits the loom to operate backwards automatically, thus facilitating the finding of the filling and the proper position of the shaft."

Monsanto Sets Up Fellowship At N. C. State

The establishment of a Monsanto Chemical Co. fellowship for research in textile chemistry and physics at North Carolina State College, Raleigh, N. C., was announced recently by E. G. Somogyi, Merrimac Division research director. The fellowship will run for one year supported by a $1,200 contribution. The Merrimac Division operates a large textile chemistry laboratory at Everett, Mass.

Under the terms of the agreement with North Carolina

Miss Pat Mullarkey of Dallas, Texas, was selected Maid-of-Cotton for 1952. Textile manufacturers select Burk-Schier Wet Processing Agents for dyeing and finishing yarns and fabrics made of cotton.

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State, the fellow will be chosen by the textiles and graduate schools of the college. While the fellowship will be for graduate work in the school of textiles, it will be open to qualified students with degrees in chemistry, chemical engineering, mechanical engineering, physics or other scientific and engineering courses and will be awarded on the basis of outstanding achievement and promise.

Cavitoma Found Affecting Spinning Speeds

The problem of micro-biologically damaged cotton is become more important to spinning mills because of higher spinning speed, elimination of mill processes and high efficiency levels in textile plants, it was brought out at the Spring meeting of the Fiber Society April 16-17 at Clemson, S. C.

Mill men claimed that staple lengths of cottons affected by "cavitoma," the name applied by Kendall Mills, which has spear-headed mill studies of this damage, shrinks as much as one-eighth of an inch over six to eight months. Processing problems are created, it was cited, when a mill is set up to run a certatin length staple and four or six months later, the cotton's behavior is like that of lower-length staples.

Tests of one lot of Memphis territory cotton classed as middling, $1\frac{1}{32}$-inch staple, indicated that cavitoma cottons resulted in "poor mill running." Six bales each of neutral or non-cavitoma, and alkaline or cavitoma, cotton were processed under similar conditions. Study showed 33 ends down on non-cavitoma and 78 on the cavitoma category and the count strength factor was .17 and .13, respectively. Strength of both was "good," fineness and maturity were comparable but waste was higher in the alkaline cottons.

Another experiment was made by blending damaged cotton with a small percentage of thermoplastic fiber. This proved of little value, it was said, because no increase in strength was obtained until the plastic was advanced to a very high percentage of the blend.

A survey of Eastern and Memphis growths in 1951, described as being "ideal" growing conditions for the spread of cavitoma, revealed that 46 per cent of bales examined fulfilled tests of alkalinity and low sugar content, as compared to 80 per cent a year earlier. Presence of these micro-organisms last year was said to be worse than in 1947, a comparable year on the basis of favorable growing conditions.

Need for further basic research in cellulose chemistry was stressed by a research chemist, who said that radioactivity was being employed in experiments.

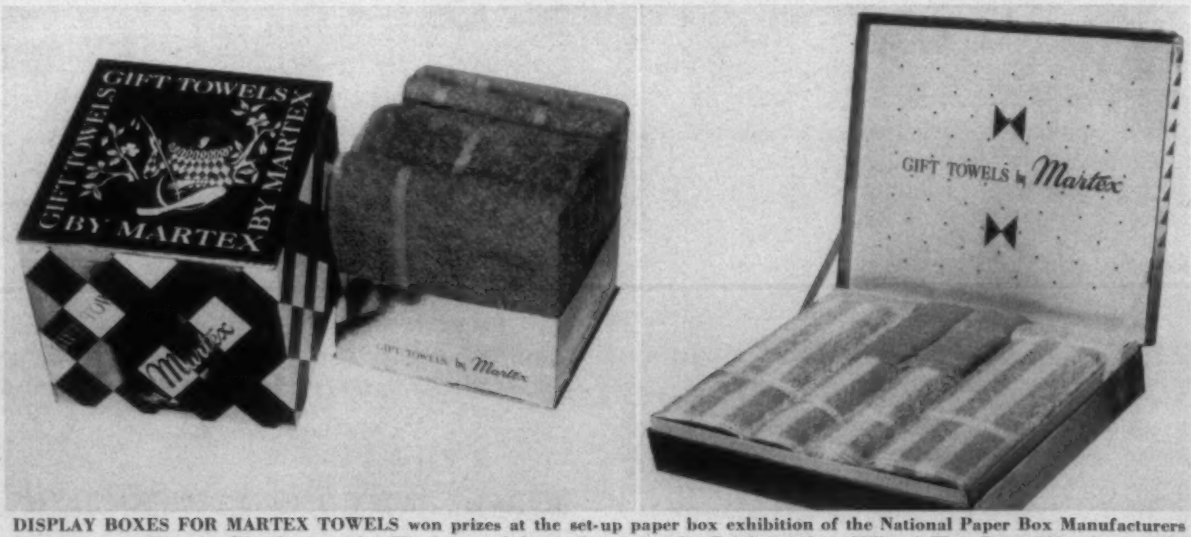
Enzyme or enzyme complex, which exerts a rapid, pronounced action on cotton fiber, measured by subsequent application of a new sodium hydroxide in centrifuge test, has been found in filtrates of culture media following growth of various fungi, according to Dr. P. B. Marsh, Bureau of Plant Industry, U. S. Department of Agriculture, Beltsville, Md. Cell-free filtrates from the growth of Fungus M. Verrucuria on a mineral salt in cotton fiber medium, in addition to exhibiting this enzyme activity also caused substantial losses in strength and length of the fiber. However, Dr. Marsh added, the action has not been identified with this enzyme and may represent work of other enzymes present in the filtrate.

Celanese Corp. of America has developed a device for continuously measuring yarn denier, Frank Nestico of the company's physical laboratory, Summit, N. J., told the gathering. A modification of the Viani tester, it employs resistance charges that are recorded directly on a brown circular chart recorder.

The instrument, which can be made at a relatively low cost, can be used to detect faulty yarn production and these errors can be correlated to machine parts and corrective action taken, he said. Variation in denier of one per cent or more can be easily detected, Mr. Marsh declared. The machine is not applicable to spun yarns, however.

C. R. Stock of the analytical and testing division, American Cyanamid Co., Stamford, Conn., said that a statistical study indicating instrumental approach to "hand" of lightweight fabrics, especially cotton, was at least as reliable as estimation by handling.

Textural ranking of fabrics frequently is not consistent,



DISPLAY BOXES FOR MARTEX TOWELS won prizes at the set-up paper box exhibition of the National Paper Box Manufacturers Association in Chicago, Ill., this month. The box *at left*, produced for the Fairfax (Ala.) Mills of West Point Mfg. Co. by Old Dominion Box Co. of Lynchburg, Va., received a second award in the textiles category, while the box *at right* (also produced by Old Dominion) won honorable mention.

he observed, leading to difficulties of interpretation. Instron testing machine and a low-range tensile tester were used to measure force of withdrawal of a length of single yarn from a fabric evaluation of "hand" by instruments will enable improved development of softeners, it was stated.

Caughman Cites South's Industrial Expansion

The South is reaching its "proper place in the economic sun" through industrial expansion, John M. Caughman of Spartanburg, S. C., former president of the Southern Textile Association, said in an address in the School of Textiles at North Carolina State College last month.

Mr. Caughman, general superintendent of Spartan Mills, a trustee of Newberry College, and a 1930 graduate of North Carolina State College, delivered his talk as a feature in the B. B. Gossett Textile Lecture Series. He was introduced by Dean Malcolm E. Campbell of the North Carolina State College School of Textiles, who presided.

The South's rising business and industrial activity, Mr. Caughman stated, is destined to make this region "the best industrial section of the nation" and will raise the standard of living here "beyond anything we have ever experienced." Erection of modern factories and the expansion of others, the speaker said, already have made the Southern states "the fastest changing region in our nation."

He told the students in the North Carolina State College School of Textiles that they are faced with the responsibility of supplying "intelligent managerial leadership for the industry of tomorrow" and urged them to obtain a broad background of education during the remainder of their college work.

Mr. Caughman emphasized the textile industry's need for what he called "men who can and will inspire loyalty in the ranks of the workers." Technological progress, he said, has made it more significant for students to learn more about "the human factor in industry" than ever before.

He expressed faith in the future of the Southern textile industry but told the students that they are confronted with "a long, hard grind" in their quest of business success. He lauded America's free enterprise system and said this type of economic life has made the United States the top world power.

Georgia Group Establishes Scholarships

Three four-year scholarships, each in the amount of $1,000 per school year, to the Georgia Institute of Technology, will be awarded Georgia high school graduates this year, it was announced May 8 by L. R. Brumby, president of the Textile Education Foundation, Inc. These scholarships, which will be awarded for the first time, were established by the foundation to "encourage and assist worthy young men who seek to obtain an education in textile engineering to prepare themselves to assume positions of leadership in this industry," Mr. Brumby said.

The Textile Education Foundation was established by Georgia textile mills in 1942 to aid in the advancement of textile education in the South, and particularly at Georgia Tech. The new scholarship plan was drafted by a foundation subcommittee headed by George H. Hightower, vice-president of the Thomaston Mills.

Scholarship regulations and application forms are being sent to the principals of all accredited high schools in the

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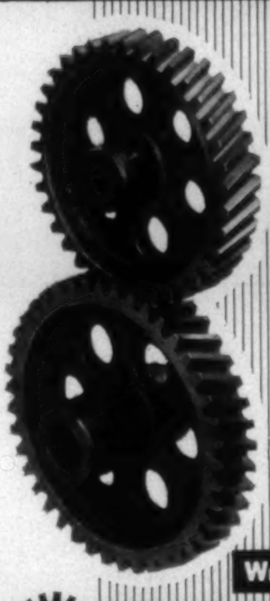

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state. The financial need of applicants will be one of the bases upon which the scholarships will be awarded, but controlling factors also will include qualities of leadership, scholastic standing, potential value to the textile industry and executive qualifications.

The primary purpose of the scholastic plan, said Mr. Brumby, who is vice-president of the Bibb Mfg. Co., Macon, is to locate, train and develop, through technical education, potential executives and supervisors for the future management and operation of textile manufacturing plants in Georgia.

Draper's 'Little Red Shop' Now Museum

"The Little Red Shop," or original shop of the Draper Corp., Hopedale, Mass., has been converted into a museum for display of the company's products. The history of "The Little Red Shop" is reviewed in the April issue of *Cotton Chats,* company publication.

The museum is divided into three rooms: an old counting room; an exhibition room; and a reproduction of the *Cotton Chats* masthead, a scene showing an old Colonial hand loom being operated by a lady in the living room of her home.

The counting room is a reproduction of an early office about the year 1850. The large executive's desk belonged to George Draper, who moved to Hopedale in 1853. Early ledgers and payroll accounts of the Drapers are a necessary addition to the counting room and throw interesting sidelights on business practices of the early days.

In the exhibition room is shown the progress of loom construction in the United States from the basic hand loom, through the original Draper-Northrop A Model loom—the first automatic loom in the world—to the most modern Draper high-speed X-2 cotton and XD rayon looms.

Clemson Students Win A.A.T.C.C. Contest

The pre-treatment of Orlon acrylic fiber in a one per cent solution of ammonium thiocynate in experiments with vat colors resulted in "considerably deeper shades" with many types, it was revealed in the prize-winning paper of the third annual student contest, sponsored by the Piedmont Section of the American Association of Textile Chemists and Colorists, held last month at Clemson, S. C.

The study, "Experiments in Dyeing Orlon With Vat Sulfur Colors," was prepared by J. L. Bridgeman and P. A. Cook, of the Clemson College student chapter, and presented by Mr. Cook. They will be awarded an expense-paid trip to the A.A.T.C.C. convention Nov. 6-8 in Boston, where they will compete with other student sectional winners for national honors.

Second place winner was "Effect of the Soaping Operation on the Fastness Properties of Naphthol Dyed Mercerized Cotton Yarn," by Roy Lee Moore, Jr., Clarence D. Smith, and Bill Jay Wright, Jr., of Georgia Institute of Technology.

W. C. Wylie, of North Carolina State College, took third place with his report on "Preliminary Study of the Sizing of Staple Orlon and Dacron." Funds for textbooks will be given to schools of the runners-up by the Piedmont Section.

The research committee headed by Dr. H. Y. Jennings, Dan River Mills, Danville, Va., at an earlier meeting attended by 70 A.A.T.C.C. members received progress reports from four study groups.

In a new approach to sulfur dyeing, a reduction in chlorine demand in liquid waste from 6,300 parts to 300 parts per million can be obtained by varying the chemical in the process, R. Hobart Souther, Cone Mills Corp., Greensboro, N. C., section chairman and head of the stream sanitation committee, reported. This would reduce by 50 per cent the amount of sulfide normally thrown into the stream, he said. Mr. Souther added that reports would be made later on other studies involving redox potential measurements to reduce waste dyestuffs.

Francis K. Burr, Burlington Mills Corp., Greensboro, told of changes of resin-treated fabrics properties with aging. The anti-static committee is establishing a program to study anti-static agents, principally on man-made fibers, according to Joseph Lindsay, Jr., professor of dyeing and chemistry at the Clemson Textile School, chairman. Methods of evaluating tear-testing will be studied by a committee under Neal Truslow, United States Rubber Co., textile development department, Winnsboro, S. C.

George S. McElroy, manager of the Anderson, S. C., plant of Owens Corning Fiberglas Corp., speaking at the banquet session, described highlights of an improved process for screen printing woven glass fabrics. Improvements include better crocking and washability, improved light fastness and retention of the no-ironing feature, he observed.

Booklet On Dyeing Of New Synthetics

A revised treatise on the most up-to-date methods of dyeing most of the new synthetic fibers and blends has just been published by the General Dyestuff Corp., which is the sole distributor for products manufactured by the General Aniline & Film Corp. The 28-page booklet, issued by G.D.C.'s technical department, headed by J. Robert Bonnar, describes current solutions to the problems of dyeing the new synthetics, which vary in complexity with the end use of the fiber.

The methods described are not final in nature, but they are believed to be the most current ones since they include new data and approaches developed since an earlier publication. The General Dyestuff Corp. brochure outlines dye methods for these synthetics: Dacron, dynel, Acrilan, Orlon, vicara, nylon, acetate, celcos, saran and fortisan. A copy can be obtained by writing to G.D.C. at 435 Hudson Street, New York 14, N. Y.

S'east A.A.T.C.C. Outing Set June 6-7

The Southeastern Section of the American Association of Textile Chemists & Colorists will hold its third annual Summer outing June 6-7 at Radium Springs Lodge, Albany, Ga., it is announced by Francis Webster of F. H. Ross & Co., general chairman.

The entertainment program will include a golf tournament, bingo party, bridge, horseshoes, cocktail party, lunch and bridge for the laides, banquet dance and favors, it was made known. Members will have access to the swimming pool, beach and fishing stream. Dress for all occasions is informal.

George Dozier, Southern Dyestuff Corp., is assistant chairman. Other committee chairmen are: finance, Joe Richardson, Russell Mfg. Co.; entertainment, Dick Henry, Textile Aniline & Chemical Co.; prizes, Howard McCamy, Pepperell Mfg. Co.; photography, Claude Suttle, American Cyanamid Co.; ladies activities, Bob Horney, Ciba Co.; registration, Dave Meriwether, Seydel-Woolley & Co.; men's activities, Donald Barnes, Arnold Hoffman Co.; golf, Jimmie Ross, F. H. Ross & Co.

Material Handling Institute Hears Gardner

More than 80 executives representing the one and a quarter billion dollar material handling equipment industry were told that "today's best investments include the natural gas industry, chemical and petro-chemical industry and the material handling equipment industry" at the quarter-annual Material Handling Institute membership meeting held recently at the Edgewater Beach Hotel in Chicago.

Fred V. Gardner of the management consultant firm of Fred V. Gardner and Associates, is a recognized expert on variable budgeting, breakeven determination and capital requirement analysis. He is the author of several books dealing with this phase of management control and for the past nine years has lectured in the commerce school of Northwestern University in Chicago in addition to conducting seminars for the Industrial Management Institute of the University of Wisconsin in Madison.

Mr. Gardner's remarks were centered on the determination of a breakeven point in the manufacture of material handling equipment and stated that "since 1936, the distance between the front and back door of manufacturing plants has more than doubled. This factor combined with continually rising costs has resulted in a new concept in management thinking—that of perfecting the science of moving materials, thus reducing the biggest single expenditure affecting final cost."

Mr. Gardner's statements were based on an analysis of his recently completed nation-wide survey aimed at determining whether American business is as sound and full of business as it appears. The survey indicated that American business is sound and on the upswing despite government regulations, frustrations, over-working of executives and the shortage of dollars for capital investment.

In spite of the shortage of dollars, the nation's investors believe that with a return of the buyer's market, manufacturers will still have a volume of business far in excess of the normal trend, but will have to reduce final cost to remain in a competitive market.

"Because American industry now produces four times the 1936 volume, the corresponding increase in plant floor space will require a re-examination of the breakeven point in manufacturing. This point, where profits turn to losses and losses to profits, can only be controlled if industry decreases its variable costs to compensate for natural increases in fixed or stand-by costs," he said.

The tremendous increase in plant floor space—estimated at twice that of 1937—has created a problem having a definite bearing on final cost. Any analysis of a manufacturing breakeven point must take into consideration this new problem—the increased cost in movement of materials before, during and after the manufacturing operation.

"The growing effort to reduce 'labor-contact' (manual labor), reduce material handling, and make that handling easier is the back-bone of a bright future. Thus with this new phase of management thinking, the future of the material handling equipment industry is assured," Mr. Gardner declared.

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Break Ground For Q.M. Research Center

Ground-breaking ceremonies were held at the site of the new Quartermaster Research and Development Center in Natick, Mass., April 19. The ceremonies, conducted jointly by the Army Quartermaster Corps and governmental officials and civic leaders, included a parade of military and civic organizations and a brief program at the site.

Dr. Harold V. Gaskill, deputy chief of research and development, Office of the Army Chief of Staff, and civilian deputy for research and development, to the assistant chief of staff, G-4, was the principal speaker. Dr. Gaskill is on leave as dean of the division of science and director of the science research institute of Iowa State College.

The laboratory to be constructed at Natick will consolidate Quartermaster Corps research activities now being conducted in Quartermaster laboratories at Philadelphia, Pa.; Jeffersonville, Ind.; and Lawrence, Mass.

The site of the laboratory was selected by the then Secretary of Defense, George C. Marshall, on March 8, 1951. Selection was based on the recommendation of a special committee headed by Dr. Blake R. Van Leer, president of the Georgia Institute of Technology. The committee considered 340 suggested sites in 40 states.

Use Of Microdyeoscope In Dye Studies

A revolutionary method for observing the appearance and behavior of textile fibers and the dyebath during the continuous and complete dyeing cycle is described in a new Calco technical bulletin, "Microscopical Dyeing Phenomena Studies with the Microdyeoscope" by H. E. Millson and L. H. Turl, application research laboratories, American Cyanamid Co., Calco Chemical Division, Bound Brook, N. J.

The microdyeoscope developed by the authors, permits both visual and photographic observation of dyeing phenomena approximating conditions encountered in the usual commercial dyeing process. This instrument and several dyeing studies carried out with its aid are described in this paper.

Besides providing means for control of all factors believed important in the dyeing process, the microdyeoscope permits continuous microscopic examination of the same fiber or fibers at all stages of the operation including wet processes either preceding or following the dyeing cycle.

The microdyeoscope is not manufactured as a unit. A list of suppliers of parts from which the unit may be assembled are named in the bulletin. Copies of Calco Technical Bulletin No. 825 may be obtained by sending a request to the Advertising Manager, American Cyanamid Co., Calco Chemical Division, Bound Brook, N. J.

Bulletin Themes Use Of Hydrogen Peroxide

Buffalo Electro-Chemical Co., Inc., Buffalo, N. Y., recently released a new bulletin on "Oxidation of Vat Dyes on Cotton and Synthetics with Hydrogen Peroxide." Fully covered in the new bulletin are typical procedures for oxidizing vat dyes with hydrogen peroxide. Included are dye oxidation on continuous ranges, on the jig, and in package machines. Yarn and raw stock dyeing are treated separately.

Step-by-step procedures for each type of oxidation are carefully described in the new bulletin. Advantages to the user of hydrogen peroxide in oxidizing vat dyes on cotton and synthetics are offered. Among them are convenience with which the equipment can be operated. The new bulletin, No. 38, has been issued by the research and development department of the Buffalo Electro-Chemical Co., Inc. Copies may be obtained by writing the Becco Sales Corp., Station B, Buffalo 7, N. Y.

April Rayon Shipments Listed

April shipments of rayon and acetate by United States producers totaled 79,100,000 pounds, an increase of 4½ per cent compared to March when 75,500,000 pounds were shipped, according to the *Textile Organon,* statistical bulletin of the Textile Economics Bureau, Inc. For the first four months of 1952, rayon and acetate shipments amounted to 326,300,000 pounds, a decline of 23 per cent from the corresponding period in 1951.

During the month of April, over-all production of rayon and acetate was again cut back and output for the month was the lowest since July, 1949. But stocks held by producers at the end of April, amounting to 117,500,000 pounds, showed a two per cent decline from the all-time high figure of 119,700,000 pounds at the end of March.

Output of the viscose high tenacity yarn and viscose+cupra staple+tow branches of the industry during April continued at the high rate recorded in the first quarter of 1952. The high tenacity yarn division was operating at capacity and shipments kept pace, with the result that inventory accumulation remained negligible. The same was generally true for the viscose+cupra staple+tow branch.

Output of regular+intermediate tenacity viscose+cupra yarns, on the other hand, dropped to 12,200,000 pounds, a decrease of 19 per cent from March. Shipments running slightly below production brought about a small stock increase.

Acetate yarn production continued at the low level of 10,300,000 pounds during April, but shipments showed a gain compared to March and were in excess of the April production so that a decrease of 3,800,000 pounds in stock was effected. Acetate staple+tow production registered a decline for the fifth successive month and April production was lower than any month since June, 1949. But here, too, shipments were greater than production and inventory showed a decline from the preceding month.

Imports of rayon staple during the month of March amounted to 11,101,000 pounds, or 18 per cent more than the preceding month, and 70 per cent more than the corresponding month of 1951. March imports of staple were larger than any month since November, 1950. For the first quarter of 1952, imports of staple totaled 28,491,000 pounds or 13 per cent more than in the first quarter of 1951.

France and Norway were the leading exporters of staple to the United States in the first quarter of the year, with each of these countries shipping 14 per cent of the total. Next largest exporters in order were United Kingdom 12 per cent, Italy 11 per cent, Belgium and Germany ten per cent each, the Netherlands eight per cent, Sweden seven per cent, Canada five per cent and all other countries nine per cent. Compared to a year ago, notable changes were increases from Belgium, Canada, France, Italy, the Netherlands, Norway and the United Kingdom, and declines by Austria, Germany and Switzerland.

Rayon filament yarn imports totaled only 56,900 pounds for the first quarter of the year, an insignificant amount compared to the 3,469,800 pounds brought into the country during the first quarter of 1951. March imports alone totaled a mere 11,900 pounds, compared to 987,900 pounds in March, 1951.

A study of first quarter production by the *Organon* reveals that the output of 263,800,000 pounds of rayon and acetate yarn and staple was 19 per cent under the comparable quarter in 1951, and at the lowest level since the third quarter of 1949. High tenacity viscose was the only class of filament yarn showing an increase in production for the quarter. Output for the quarter for this branch was at an all-time high peak of 96,700,000 pounds, an increase of 23 per cent over the comparable quarter in 1951.

Production of regular+intermediate tenacity viscose+cupra filament yarn amounting to 52,400,000 pounds was 38 per cent below the first quarter 1951 level, and 25 per cent lower than the fourth quarter of 1951. Declines were even more severe in the acetate category with current year first quarter production down to 40,000,000 pounds compared to 81,700,000 pounds in 1951, and 49,800,000 pounds in the final quarter.

Viscose+cupra staple+tow production in the first quarter, however, showed an increase of six per cent over the corresponding quarter in 1951 with output up to 53,200,000 pounds. It was down slightly compared to fourth quarter 1951 production. Acetate staple+tow output continued low with an output of 21,500,000 pounds in the first quarter, the lowest figure since the third quarter of 1949.

Total rayon and acetate filament yarn shipments in the first quarter amounted to 178,700,000 pounds, and while slightly higher than the quarter immediately preceding, they were 26 per cent below the first quarter of 1951.

For tires and related uses, shipments of yarn in the first quarter amounted to 94,400,000 pounds, an all-time high quarterly record. Total textile yarn shipments amounting to 82,100,000 pounds, however, were 39 per cent below the 1951 average quarterly figure of 134,000,000 pounds and 49 per cent below the 1950 average of 162,000,000 pounds. Reduced shipments for broad woven goods, accounting for 77 per cent of the total yarn consumed in the textile yarn category, were the principal reason for the drop. Shipments for broad woven goods were only 63,400,000 pounds compared to 132,500,000 pounds in the first quarter of 1951 and a quarterly 1951 average of 107,500,000 pounds.

All other textile trade shipments were also off sharply compared both to the first quarter of 1951 and the final quarter of that year. The poundages involved, however, are much smaller in each case than for broad woven goods.

Average denier of viscose+cupra domestic textile yarn shipments in the first quarter of 1952 rose to 175 from 170 in the final quarter of 1951 and the notably lower figure of 134 in the first quarter of 1951. This resulted from the fact that shipments of 300-denier and coarser yarns did not decline anywhere nearly as sharply as 100-denier and finer yarns.

For tires and related uses, first quarter average denier of rayon yarn shipments was 1,577 compared with 1,566 in the final 1951 quarter and 1,568 in the first quarter of 1951. For acetate yarn, the average denier was 108 in the

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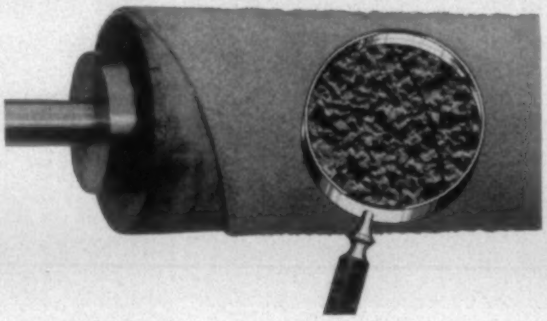

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first quarter of 1952 compared to 112 in the final 1951 quarter and 102 in the first 1951 quarter.

Commenting on the 1951 production of broad woven goods, the *Organon* points out that output last year of all goods, including cotton, rayon and acetate and other man-made fibers, and wool, was the third best year on record, although production declined from 13,135,000,000 linear yards in 1950 to 12,786,000,000 yards in 1951. The all-time high was reached in 1942 when production, stimulated by military demand, reached 13,289,000,000 linear yards.

In the silk, rayon, and man-made fiber category which includes rayon and acetate fabrics, it is noted that production dropped from 2,661,000,000 yards in 1950 to 2,345,000,000 yards in 1951. The over-all group decline of 316,000,000 linear yards is more than accounted for by the drop in rayon and acetate fabrics alone, which showed a net decline of 390,000,000 yards. Correspondingly, nylon and other synthetic fabric production increased by 74,000,000 yards.

Cotton fabrics showed a gain of 29,000,000 yards for the year, but wool goods production dropped 62,000,000 yards and the 1951 total of 367,000,000 yards was the lowest figure since 1939.

The main reason for rayon and acetate yardage loss is found in the decline of 100 per cent rayon or acetate filament yarn fabrics, with the output of these fabrics at 1,284,000,000 linear yards showing a decrease of 20 per cent compared to the previous year. Production of 100 per cent nylon broad woven goods continued the unbroken upward trend which began immediately after World War II. Production at 153,000,000 yards was 39 per cent greater than in 1950. Other synthetic fabrics showed a large increase, with output rising from 62,000,000 yards in 1950 to 95,000,000 yards in 1951, a gain of 53 per cent.

Bell Cites Opportunity In Cotton Textiles

Cotton textiles and their products, now on the bargain counter as to price, present an opportunity rare in the post-war period for replenishment of greatly reduced distributive and consumer stocks, W. Ray Bell, president of the Association of Cotton Textile Merchants of New York, declared recently.

Values of gray colored, converted, and mill fabricated cottons among mill sales organizations in the New York City textile markets offer particular attractions to the trade, the statement, issued to announce National Cotton Week May 12 to 17, said. Concurrently with the statement, the association placed on display the annual National Cotton Week banner flown over Worth Street at Church Street.

"A downward spiral in prices of cotton goods has been going on through all of 1951 and the first four months of 1952," Mr. Bell noted. "Government statistics on gray cloth constructions show the narrowest margin of the entire post-war period between cost of cotton and selling price of

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goods. Cloth production for many months has been trending downward and new curtailments are reported weekly. Output of goods is at a rate well below the normal replenishment needs of the country. Distributors long have followed the policy of buying from hand-to-mouth. The cotton goods markets are in the trough of the downward cycle. The incidence of National Cotton Week, when traditionally broad retail promotions are carried on through the nation, should serve as a reminder of the potentialities and opportunities which exist for sales volume increase in the textile markets generally."

A.C.M.I. Says Stage Set For Recovery

The period of rear guard action in cotton textiles is about over and the stage has been set for the positive forces of recovery, according to "Cotton Textile Hi-Lights," a statistical survey issued quarterly by the American Cotton Manufacturers Institute.

In the current issue, the A.C.M.I. declares, "It may well be that the phase has been reached in our industry where the short-time readjustments from the peak of 1951 have ceased to operate as active downward forces. There is reason to believe that this is so within the industry proper and within the radiating pipelines of customer supply. The weights we inherited from the excesses of 1950-1951 are in a major sense shaken off. Their successors—the lifting forces of recovery—are still weak and scattered but they are visible, even though dimly."

While admitting that many aspects of a depression such as low prices and hesitant buying still linger, the A.C.M.I. points out that there has been a pronounced recovery in retail sales of cotton products, which are running well ahead of last year, and that surplus retail inventories have been liquidated. In physical volume, department store stocks now approximate the 1947-1949 volume for the country as a whole and in the New York areas they are actually lower.

The survey concludes with this statement, "That a deficit has existed in civilian consumption for some months has been apparent and is no longer explainable by the scare buying of more than a year ago. No one expects that consumer demand will reassert itself as a tidal wave but, on the other hand, it cannot long continue to be damned up. Defense expenditures continue to expand despite the stretch-out of production schedules, and to this growing source of income must be added the still undetermined amounts in prospect flowing from the administration wage policy, which apparently has abandoned its program of wage stabilization. Also to be considered is the high level of purchasing power and the great number of employed."

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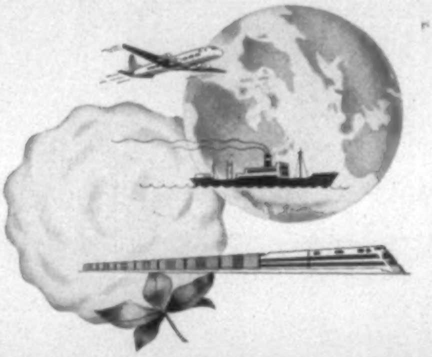

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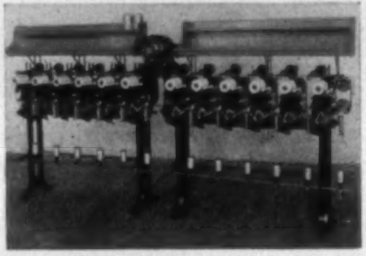

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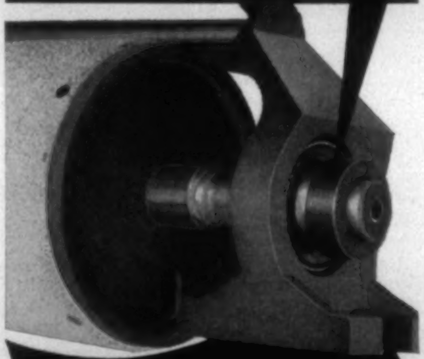

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Before Closing Down

— TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED —

PERSONAL NEWS

Sumner H. Williams *(left)* has been transferred to the New York office of General Dyestuff Corp. as vice-president and general sales manager. For the past ten years Mr. Williams has been Southern manager for the firm with headquarters in Charlotte, N. C., and he will be succeeded in that post by Charles C. Cayce, assistant manager at Charlotte for the past five years. Mr. Cayce, a graduate of Georgia Tech, has been with General Dyestuff Corp. since 1929.

Watson L. Tolson has been named sales representative in the state of Georgia for the steel strapping division of the Stanley Works, New Britain, Conn. He will make his headquarters in Atlanta. Mr. Tolson is a 1941 graduate of the University of Georgia and before joining Stanley was associated with Montgomery Ward and American Oil Co.

Jacob W. Schwab, president of United Merchants & Manufacturers, Inc., has been elected as one of three new directors of the Commerce & Industry Association of New York, Inc. A native New Yorker, Mr. Schwab started with the organization he now heads as a $4-a-week office boy. He has been president of the firm since 1938. . . . J. O. Elsmore, who has been at the U.M. & M. plant at Clarkesville, Ga., since last August has returned to the Statesville, N. C., plant as superintendent of weaving, slashing and cloth room. Also at Statesville, H. C. Nixon was transferred from general overseer of weaving to general overseer of preparation, and Z. V. Simmins was transferred to general overseer of weaving from superintendent of weaving weaving, slashing and cloth room.

George O. Linberg has been named vice-president and New England sales manager of Synthron, Inc., Ashton, R. I. His previous associations include Belle Chemical Co., Reading, Pa., the Merrimac division of Monsanto Chemical Co., and E. I. du Pont de Nemours & Co., Inc. Mr. Linberg is a former vice-president of the American Association of Textile Chemists & Colorists and is chairman of its forthcoming national convention in Boston, Mass., next November.

Davis L. Lewis, Jr., has been promoted by E. I. du Pont de Nemours & Co. from nylon district sales manager for the Charlotte, N. C., area to personnel manager of the sales division of the textile fibers department in Wilmington, Del. James W. Mitchell, assistant district manager at Charlotte, succeeds Mr. Lewis as manager at the Charlotte office. John M. Owens, nylon salesman, is being transferred from Chattanooga, Tenn., to become assistant manager at Charlotte. Mr. Lewis' position at Wilmington is a new one in the company and he assumes his duties June 1. . . . J. H. Ellett, manufacturing superintendent of Du Pont's May Plant at Camden, S. C., has been transferred to the textile fibers department, manufacturing nylon. S. G. Crews, manufacturing superintendent, staple, has been assigned as manufacturing superintendent, staple and yarn. L. B. Steele, technician and superintendent, has been assigned as assistant plant manager at Camden.

Donald C. Oskin *(left)* has been appointed assistant manager of sales for the Westvaco chemical division of Food Machinery & Chemical Corp. Mr. Oskin succeeds John deF. Mayler, who has resigned. Mr. Oskin most recently was director of district sales for the organization and for a time was in charge of the firm's Washington office.

Paul Gaffney has been promoted from assistant superintendent of Orr Mills, a division of M. Lowenstein & Sons, Inc., at

Anderson, S. C., to general superintendent of weaving at Orr and at Limestone Mills, another Lowenstein unit at Gaffney, S. C. . . . Henry L. Buchanan has been promoted from superintendent of Oconee Mills, Westminster, S. C., to head of Lowenstein's industrial engineering department with headquarters at Anderson.

P. Huber Hanes, Jr., *(left)*, has been named executive vice-president of P. H. Hanes Knitting Co., Winston-Salem, N. C. Mr. Hanes was elected to the position by the company's board of directors to succeed Thomas D. Meriwether, who retired May 5 after more than 20 years' service. Mr. Hanes has served the company in the capactiy of assistant secretary and assistant treasurer and was elected vice-president in 1948. In 1949 he became vice-president in charge of manufacturing.

George O. Jones, assistant vice-president and credit manager of Callaway Mills Co., LaGrange, Ga., May 1 celebrated his 25th anniversary with the company. His full 25 years have been with the credit department. He was presented a 25-year emblem, an engraved watch and flowers.

J. F. Hutchinson has joined the engineering staff of the Southern office of Barnes Textiles Associates at Spartanburg, S. C. Mr. Hutchinson has had wide experience in textiles, having formerly been with Pacific Mills at Columbia, S. C., Stonecutter Mills, Spindale, N. C., and Broadnax (Va.) Mills.

Donald Harvey, general manager of the Lindale, Ga., division of Pepperell Mfg. Co., and Julius J. Scott, president of Scottdale Mills and Georgia Duck & Cordage Co., Scottdale, Ga., and Whittier Mills, Chattahoochee, Ga., were named honorary members of Phi Psi, national textile fraternity, at the recent annual banquet and initiation of Theta Chapter at Georgia Tech, Atlanta.

James N. McNamee has been appointed sales representative for the industrial chemicals division of American Cyanamid Co. in the states of Georgia and Florida. He will make his headquarters in Atlanta, Ga. Mr. McNamee is a graduate of Tufts College, Medford, Mass., with B.S. and M.S. degrees in chemistry. Prior to his present assignment he handled technical service work in connection with several of Cyanamid's synthetic organic nitrogen compounds.

N. E. Goodwin of Dillon, S. C., will assume new duties as overseer of carding and spinning at Manetta Mills, Monroe, N. C., on June 2.

Dr. Fred J. Emmerich, president of Allied Chemical & Dye Corp., May 8 was presented the gold medal of the American Institute of Chemists at the group's 29th annual meet-

Southern Textile Association Convention

June 12-13-14 at Myrtle Beach, S. C.

PLANS for the 43rd annual convention of the Southern Textile Association, to be held June 12-13-14 at the Ocean Forest Hotel, Myrtle Beach, S. C., have been announced by Joseph L. Delany, S.T.A. president for 1951-52.

The meeting of mill managers, superintendents and overseers from the Carolinas and Virginia will begin Thursday evening, June 12, with a buffet supper in the hotel dining room, followed by a floor show and dancing arranged by the S.T.A. Associate Members Division (made up of machinery and supply firm representatives).

The first business session will take place Friday morning and will feature the following speakers: R. M. Jones of Biddeford, Me., director of research for Saco-Lowell Shops; Walter Regnery, president of Joanna (S. C.) Cotton Mills, chairman of the Institute of Textile Technology's technical advisory committee and advisor on cotton mechanical processing research to the Department of Agriculture's Southern Regional Research Laboratory; and W. A. L. Sibley, vice-president and treasurer of Monarch Mills, Union, S. C., and the 1952-53 president of the American Cotton Manufacturers Institute.

Arthur Horrocks

Walter Regnery

W. A. L. Sibley

R. M. Jones

Friday afternoon activity will be of a recreational nature, with a golf tournament at the nearby Dunes Golf & Beach Club, and a bingo contest in the Ocean Forest for non-golfers. W. S. Terrell of Terrell Machine Co. and chairman of the golf tournament committee, states that the Dunes Club will issue special guest tickets to those attending the S.T.A. convention at the special price of $2.50 instead of the regular price of $4, which will include greens fee and all club privileges. That evening prior to the annual banquet the Associate Members Division will entertain at a reception, and following the banquet there will be another floor show and more dancing.

The final convention business session will take place Saturday morning, June 14. The first item will be an address by Retiring President Delany, who is general superintendent of Joanna Cotton Mills. He will be followed by Arthur Horrocks of Akron, Ohio, public relations counsel for Goodyear Tire & Rubber Co., who first addressed an S.T.A. convention in 1947 and is favorably remembered as the "highlight" speaker of that meeting. The program will conclude with resolutions, nominations and election of 1952-53 officers.

An attendance of approximately 400 mill men and suppliers is expected at Myrtle Beach, since the Ocean Forest Hotel has been booked to capacity for a number of weeks. Following a suggestion by the S.T.A. Associate Members Division at last year's convention, mill officials were given a priority on room reservations during the month of February, this year, and as a result, attendance by textile plant managers, superintendents and overseers will be the largest in recent S.T.A. convention history. Representatives of machinery and supply firms reserved all remaining rooms in the hotel during March, and since the middle of that month have been securing accommodations at other beachfront hotels.

ing in New York City. In his asseptance address, "Science and Human Relations," Dr. Emmerich said, "the achievements of science, as demonstrated by the result of chemical, medical and industrial research, lead to the expectation of future progress unthought of today."

George E. Fogle, Jr., has been named general manager of Lowell Bleachery, South, Griffin, Ga., and Ralph Dorsey has been named assistant general manager. A. T. Henninger, Jr., formerly manager of the New York office, has been appointed vice-president in charge of sales. Mr. Fogle and Floyd Newton were named to the board of directors to fill vacancies caused by the deaths of George Murray and Walker Norman.

Lemuel F. Baker is now overseer of spinning at Waverly Mills, Inc., Laurinburg, N. C. Before joining Waverly Mr. Baker was with the Ranlo, N. C., plant of Burlington Mills Corp.

OBITUARIES

Marcus L. Aderholdt, Sr., 81, of Hickory, N. C., one of the founders of Henry River (N. C.) Mills Co., died May 7 at a hospital in Hickory. Mr. Aderholdt is survived by his wife, five daughters and a son.

Elisha P. Dismukes, 81, a leader in Georgia textile circles for more than 50 years, died May 8 of a heart attack at his home in Columbus, Ga. He was secretary-treasurer, president and chairman of the board of directors of Georgia Mfg. Co. for more than 50 years, and was a director of Columbus Bank & Trust Co.

Arthur Iselin, 74, a director of William Iselin & Co., New York, died May 6 at his home in New York after a heart attack. He was formerly chairman of the finance committee of William Iselin and a director of Iselin-Jefferson Co. Surviving are his wife, two daughters and a son.

Col. Charles F. H. Johnson, 71, since 1929 president of Botany Mills, died May 9 at his home in Passaic, N. J., following a heart attack. Colonel Johnson first became a director of Botany in 1920 when the firm was being operated by the Alien Property Custodian, who had seized it as enemy-owned in 1918. Surviving are his wife, his son Charles, executive vice-president of Botany, and a sister.

Benjamin M. May, 67, retired general manager of the rayon department of E. I. du Pont de Nemours & Co., died May 5. Mr. May retired June 30, 1949, after 46 years with Du Pont. Du Pont's plant at Camden, S. C., for the manufacture of Orlon acrylic fiber was named the May Plant in his honor. His wife, a daughter and a son survive.

Yates D. Smith, 53, president and general manager of Smith Textile Apron Co. and Yates D. Smith Co., specialists in textile machinery, Gastonia, N. C., died May 10 of a heart ailment. Survivors are his wife, two daughters, three brothers and two sisters.

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